PEER REVIEW
COORDINATING DRAFT

TASK ANALYSIS
FOR

EMPLOY CLOSE AIR SUPPORT
(CRITICAL COMBAT FUNCTION 9)

AS ACCOMPLISHED BY A BATTALION TASK FORCE

PRIME CONTRACTOR
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Task Analysis for Employ Close Air Support as Accomplished by a Battalion Task Force. Critical Combat Function 9 (CCF 9)

James Huffman
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BDM Federal, Inc.

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13. ABSTRACT *(Maximum 200 words)*

The purpose of CCF 9 is to provide responsive and concentrated, air delivered, fire power in coordination with the fire and maneuver of the task force ground forces.

The outcomes include:

1) CAS supports task force ground scheme of maneuver.
2) Air delivered firepower neutralizes enemy ability to counter ground maneuver.
3) Delivery of air fires does not interfere with other task force direct or indirect engagements.
4) Delivery of air fires does not interfere with task force maneuver.
5) Task force use of other supporting fires does not interfere with delivery of air fires.
6) Air delivered firepower does not result in fratracides to ground forces: and, there are no fratricides to friendly air forces.

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PREFACE

This task analysis of **Employ Close Air Support, Critical Combat Function 9** (CCF 9), is an intermediate product of the process of developing a training strategy for the CCF. The analysis reflects tasks, products, players, and processes in the sequence necessary to provide for the employment of close air support (CAS) by a heavy battalion task force. "CAS is air action in support of ground operations against hostile targets that are in close proximity to friendly forces and that require detailed integration of each air mission with the fire and movement of those forces. [NOTE: Close proximity means that friendly forces and/or noncombatants are close enough to the target that care must be taken to avoid casualties from air-delivered weapons effects.]" (FM 6-20-30, Fire Support for Corps and Division Operations, 18 October 1989, at pp. 3-2, 3-3.)

> **CRITICAL COMBAT FUNCTIONS:** *The integration of related players and tasks that represent a source of combat power. The synchronization of critical combat functions provides maneuver commanders at any echelon with a definable outcome that materially affects the battle.*

The nature of operations on the modern battlefield is such that, at any given time, the battalion task force is receiving and reacting to information or orders (planning future operations and/or changes to the current one, preparing for current or new missions, and executing the current mission). All of this is done concurrently and results in continuous planning, preparation, and execution. These simultaneous activities may be best described as the monitor/plan/direct process. This is particularly true of employing CAS, since the time for the TF planning process is normally too short to utilize the air planning cycle imposed by theater and corps air control. In addition, immediate CAS may be planned, requested, and committed several times during the TF execution phase. To simplify the development and understanding of this CCF, the function has been isolated and analyzed in a linear manner through the three, distinct, battle phases of PLAN, PREPARE, and EXECUTE. These battle phases (PLAN, PREPARE, and EXECUTE) relate to the entire battalion task force (TF) battle and are not phased for this particular CCF. For a detailed description of the CAS planning process, see the note at the end of this section. Review of available doctrinal material revealed very few direct references to CAS during the task force planning cycle. Since CAS is a critical component of fire support and requires substantial planning and coordination, requirements identified for Commander's guidance and decisions on fire support (use of resources, priorities, etc.) were interpreted as implying that the same decisions and/or guidance was also issued with respect to CAS.

This analysis depicts the activities of CCF 9, Employ Close Air Support, from receipt of the brigade operations order through completion of mission or execution of CAS sorties. This CCF addresses tasks related to planning, preparation for, and execution of close air support. Both Air Force and Army manuals call for Tactical Air Control Parties (TACPs) to be located at both brigade and battalion levels. "At brigade, the TACP is composed of two Air Force ALOs who are trained to control air strikes and two noncommissioned officers (NCOs) called tactical air command and control specialists (TACCSs). At battalion, the TACP is composed of one ALO and two enlisted specialists. At least one TACCS per battalion TACP is qualified as an ETAC [Enlisted Terminal Attack Controller] (qualified to control CAS sorties)." (FM 6-20-40 Fire Support for Brigade Operations (Heavy), 5 January 1990, at p. A-11.) Army and Air Force manuals both identify TACP functions, duties, and responsibilities at the tactical level (brigade and battalion) without regard to the echelon involved. There appears to be no difference, at the brigade/battalion level, in what tasks a TACP is required to perform in order to have aircraft deliver munitions on ground targets. While Air Force regulations require that "terminal attack control functions" may only be performed by a "certified Air Force terminal attack controller: AFAC, ALO, ETAC" except under "emergency combat conditions", a specific effort has been

made to identify those tasks that can and should be performed by TF personnel in the absence of qualified Air Force Tactical Air Control Party (TACP) personnel. Even though TF personnel may not be able to exercise terminal attack control with actual aircraft during peacetime, they should be trained by the TACP to perform all CAS control functions in preparation for those "emergency combat conditions." (See MSG R 1919022 SEP 88, FM HGB WASHINGTON DC TO RHDIAAA/HQ TAC LANGLEY AFB VA, SUBJ: CLOSE AIR SUPPORT TERMINAL ATTACK CONTROL; and HQ TAC/DO/XP 031300Z NOV 89, SUBJ: FCIF TO TACP 50-20; MCM 3-1, VOL III, V, AND VIII; TACR 55-26.)

The level of detail and the tasks were selected by the analyst as important to the analysis of the CCF from the perspective of the TF training strategy. Compliance with branch training strategies and proficiency at MTP tasks and subtasks are recognized to be the responsibility of TF subordinate commanders. However, some tasks and subtasks are critical to TF success; these, then, are included in this analysis because the TF commander may wish to emphasize them in his training guidance.

In this analysis, an effort was made to identify specific task titles taken directly from the appropriate ARTEP Mission Training Plan (MTP). Task titles not taken directly from the MTP are derived titles that may apply to only part of a subtask or some other element of the MTP; to multiple subtasks from different, but related, tasks; or to tasks that are not directly stated in the MTP, but are implied by other tasks or requirements in an applicable field manual (FM) or other related document (See references at pg. 80). While the wording of each task is sometimes a direct quote from the MTP, generally, the task wording is an integration of tasks and requirements from the MTPs, applicable FMs, and other related documents.

Note: **CAS Planning Process**

There are two types of requests for CAS — preplanned and immediate.

Preplanned requests are for "those missions scheduled in advance which are part of an overall fire plan. Requests are compiled at each echelon and forwarded through Army channels for approval/disapproval and coordination. TACPs at each echelon monitor the requests and advise and coordinate as required. If disapproved at any level, the request is returned through Army channels to the originator. On reaching the highest Army level, the request is assigned a precedence and submitted to the TACC (Tactical Air Control Center). Specific mission data from the ATO (Air Tasking Order) accompanies the approved request back through Army channels to the requester." Air Force Multi-Command Manual (MCM) 3-3, Vol VIII at p. 9-6.

Immediate requests are for "those missions which, by their nature, cannot be planned in advance of operations. The ground unit requesting immediate support passes the request to the TACP for transmission over the Air Force Tactical Air Request Net. Intermediate TACPs copy each request and notify the ALO and S2/G3 Air for necessary approval/ disapproval and coordination. If an intermediate Army echelon disapproves the request, the disapproval is transmitted to the ASOC and the requester. If the request is approved (silence indicating approval), the ASOC scrambles/diverts the necessary sorties IAW Army priorities. If sorties have not been allocated to the ASOC, the request is forwarded to the TACC." (MCM 3-3, Vol VIII at p. 9-6.

The air support planning process is continuous, but is based on a 72 hour planning period. The process is initiated when the Joint Force Commander at theater level issues a tentative apportionment of air resources through TACC to the corps approximately 72 hours prior to execution. The apportionment identifies the number of air sorties expected to be available to the corps in 72 hours.

At corps, the ASOC (which is co-located with the CTOC) uses this information as the basis for planned requests to support anticipated operations expected to commence in 72 hours. Corps allocates a certain number of sorties to division for their planning (48–72 hours out). As the process continues, subordinate units submit requests for air support through division to corps; corps updates and confirms its requests, allocations, and priorities and send them forward to the TACC (36–48 hours out); the TACC allocates sorties to match corps apportionment and forwards information to corps (30–36 hours out); division and corps receive targets from subordinates, update, and forward updated information to the TACC (24–30 hours out); the TACC then publishes the ATO for the next 24 hour effective period (18 hours out). The ATO tasks assigned and attached fighters to do specific missions. At any given time, units will be jointly working three or more ATOs—executing the current ATO (24 hours), planning the next day's ATO (48 hours), and forecasting and coordinating the ATO for the following day (72 hours). During this process, corps can retain certain amounts of allocated air in anticipation of immediate requests so that CAS can respond to contingencies that develop during the course of division battles. (FM 6-20-30, dated 18 October 1989, at pp. 3-3 to 3-8).

While Army missions (attack, defend, etc.) are assigned based on objectives, some planning and preparation time is necessary at each echelon.

Due to the "normal" tempo of battle, it is unlikely that a battalion or brigade would be able to request CAS early enough to be included in the ATO for execution. They must rely on preplanned requests made by division and corps, requests made based on intelligence that will be two days old when the CAS is ready for execution. The battalion and brigade make preplanned requests to support their operations as they are being planned. At division and corps, these requests are disapproved or approved and filled by reallocating or diverting air that has already been preplanned at that level. (It looks like preplanned to the requester, but is not actually in the preplanning ATO process.) During the battle, immediate requests by battalion or brigade are sent directly to the ASOC and can be filled out of the corps' retained allocation for immediate air or by diverting lower priority preplanned sorties.

INDEX OF CRITICAL COMBAT FUNCTIONS

Grouped By Battlefield Operating System (BOS)

INTELLIGENCE
(1) Conduct Intelligence Planning
(2) Collect Information
(3) Process Information
(4) Disseminate Intelligence

MANEUVER
(5) Conduct Tactical Movement
(6) Engage Enemy with Direct Fire and Maneuver

AIR DEFENSE
(16) Take Active Air Defense Measures
(17) Take Passive Air Defense Measures

FIRE SUPPORT
(7) Employ Mortars
(8) Employ Field Artillery
(9) Employ Close Air Support
(10) Conduct Electronic Collection and Jamming
(11) Conduct Battlefield PsyOps
(12) Employ Chemical Weapons
(13) Conduct Counter Target Acquisition Operations
(14) Employ Naval Gunfire
(15) Coordinate, Synchronize and Integrate Fire Support

MOBILITY AND SURVIVABILITY
(21) Overcome Obstacles
(22) Enhance Movement
(23) Provide Countermobility
(24) Enhance Physical Protection
(25) Provide Operations Security
(26) Conduct Deception Operations
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COMMAND AND CONTROL
(18) Plan for Combat Operations
(19) Direct and Lead Unit During Preparation for the Battle
(20) Direct and Lead Units in Execution of Battle

COMBAT SERVICE SUPPORT
(28) Provide Transport Services
(29) Conduct Supply Operations
(30) Provide Personnel Services
(31) Maintain Weapons Systems and Equipment
(32) Provide Health Services
(33) Treat and Evacuate Battlefield Casualties
(34) Conduct Enemy Prisoners of War (EPW) Operations
(35) Conduct Law and Order Operations
(36) Conduct Civil Affairs Operations
(37) Provide Sustainment Engineering
(38) Evacuate Non-combatants from Area of Operations
(39) Provide Field Services

STRUCTURE OF CRITICAL COMBAT FUNCTIONS RELEVANT TO BATTALION TASK FORCE OPERATIONS

CRITICAL COMBAT FUNCTION: *The integration of related players and tasks that represent a source of combat power. The synchronization of critical combat functions provides maneuver commanders at any echelon with a definable outcome that materially affects the battle.*

I. **Intelligence BOS** — The ways and means of acquiring, analyzing and using knowledge of the enemy, weather and terrain required by a commander in planning, preparing and conducting combat operations. These CCF are continuous throughout the planning, preparation and execution phases of the battle.

1. **CCF (1) Conduct Intelligence Planning** — The development and coordination of information relative to the enemy, weather and terrain prior to and during the development of the unit OPORD; the planning to collect information from battlefield sources and to acquire intelligence from other headquarters. Focus of this CCF is the Intelligence Preparation of the Battlefield (IPB). This CCF addresses:

   a. Reconnaissance and Surveillance plan.
   b. Integrated threat templates (doctrinal; event; input to DST).
   c. Terrain and Weather analysis.

2. **CCF (2) Collect Information** — Obtaining information in any manner from TF elements and from sources outside the TF (e.g., higher headquarters; adjacent units): this CCF includes the tasks associated with managing the processes and activities necessary to collect battlefield information which may eventually be used to provide intelligence relative to the enemy, terrain and weather. This CCF addresses:

   a. Information collected as a result of R & S plan.
   b. Continuous information collection and acquisition from all sources.

3. **CCF (3) Process Information** — The conversion of information into intelligence through collation, evaluation, analysis, integration and interpretation in a continual process. This CCF addresses:

   a. Evaluation of threat information.
   b. Evaluation of physical environment information.
   c. Integration of intelligence information.
   d. Development of enemy intentions.
   e. Development of targeting information.
   f. Preparation of intelligence reports.
   g. Update of situational template.
   h. Provision of battlefield area reports.

4. **CCF (4) Disseminate Intelligence** — Transmission of information by any means (verbal, written, electronic etc.), from one person or place to another to provide timely dissemination of critical intelligence to all appropriate members of the combined arms team. This CCF addresses:

   a. The sending of processed intelligence in a timely manner to those on the combined arms team who can by its receipt, take appropriate actions to accomplish the mission. This includes intelligence on the enemy, terrain and weather.

b. The sending of raw intelligence directly from those responsible for reconnaissance and surveillance to the commander should that raw intelligence be time sensitive (and not be subject to receipt and processing by intelligence analysts).
c. Dissemination of battlefield reports.

II. **Maneuver BOS** — The employment of direct fire weapons, platforms and systems through movement and fire and maneuver to achieve a position of advantage in respect to enemy ground forces, in order to accomplish the mission. The direct fire weapons are: tank guns; BFV 25mm; anti-tank guns and rockets; attack helicopter guns and rockets; small arms; crew served weapons; directed energy weapons systems.

1. **CCF (5) Conduct Tactical Movement** — Position direct fire weapons systems relative to the enemy to secure or retain positional advantage making full use of terrain and formations. Tactical movement occurs when contact with the enemy is likely or imminent but direct fire engagement has not yet occurred. Units supporting maneuver units are included. This CCF addresses:

   a. Subordinate element OPORD preparation and dissemination.
   b. Preparation for movement.
   c. Movement, mounted and dismounted; on and off road.
   d. Closure of movement — tactical assembly area; tactical positions.
   e. Navigation.
   f. Force protection.
   g. Air movement.

2. **CCF (6) Engage Enemy with Direct Fire and Maneuver** —Entering into ground combat with the enemy using direct fire and/or close combat in order to destroy the enemy or cause him to withdraw. This CCF relates only to those direct fire weapons systems associated with the Maneuver BOS. This CCF is initiated with the OPORD at the completion of the planning phase of the battle and includes all tasks associated with subordinate echelon planning, preparation and execution of the battle. This CCF addresses:

   a. Subordinate element OPORD preparation and dissemination.
   b. Preparation of engagement areas.
   c. Rehearsals of battle plans.
   d. Pre-combat prepare to fire checks.
   e. Target acquisition.
   f. Fire control and distribution.
   g. Fratricide.
   h. Conduct close combat.
   i. Integration of direct fire with maneuver.
   j. Control of terrain.
   k. Prestocked ammunition.
   l. Resupply during operations.
   m. Maintenance during operations.
   n. Consolidation and reorganization.

III. **Fire Support BOS** — The collective, coordinated, and synchronized use of target acquisition data, indirect fire weapons, armed aircraft (less attack helicopters) and other lethal and non-lethal means against ground targets in support of maneuver force operations and to achieve the commanders intent and scheme of maneuver. The Fire Support BOS

addresses these weapons: mortars; field artillery; close air support; electronic measures; naval gunfire.

1. **CCF (7) Employ Mortars** — Employment of mortars by the maneuver unit to place fires on the enemy or terrain to support the commander's concept and intent. This CCF initiates with the receipt of an OPORD by the maneuver commander and address those tasks required during the preparation and execution phases of the battle. This CCF addresses:

   a. Subordinate element OPORD preparation and dissemination.
   b. Prepare to fire checks.
   i. Rehearsals.
   c. Pre-combat checks.
   d. Development of order to fire.
   e. Tactical movement.
   f. FDC operations.
   g. Target engagements with illumination, smoke, HE.
   h. Sustainment operations.

2. **CCF (8) Employ Field Artillery** — The ways and means employed by the maneuver unit to cause indirect artillery fires to be placed on the enemy or terrain to support the commander's concept and intent. This CCF initiates upon receipt of an OPORD by the maneuver commander and includes tasks performed during the preparation and execution phases of the battle. The Fire Support Coordination tasks necessary to integrate the field artillery and the maneuver units are the primary focus. This CCF does not address those field artillery tasks associated directly with those actions taken by the batteries of the artillery battalion in the conduct of their support mission such as FDC operations, gun operations, etc. This CCF addresses:

   a. Fire Support — Maneuver unit rehearsals.
   b. FSE operations during the preparation and execution phase of the battle.
   c. FSO and FIST operations in coordination with their maneuver commander.
   d. Positioning and movement within the maneuver unit sector or zone.
   e. Indirect fire missions in support of maneuver commander's concept and intent.
   f. Sustainment operations.
   g. Indirect fire planning as battlefield METT-T change.

3. **CCF (9) Employ Close Air Support** — Planning for, requesting and employing armed aircraft (less attack helicopters) in coordination with other fire support (lethal and non-lethal) against ground targets in support of the maneuver force commander's concept and intent. This CCF addresses:

   a. Air-ground attack requests.
   b. Air space coordination and management.
   c. Air Liaison Officer, Forward Air Controller; other Army Fire Support Coordination Officer; USN/USMC Bde Team Commander, SALT-O and FCT-O tasks that enable air to ground attacks.

4. **CCF (10) Conduct Electronic Collection and Jamming** —Actions taken to deny the enemy effective command, control and communications of his own tactical force in support of maneuver commander's concept and intent. This CCS includes jamming, deception, and collection.

5. **CCF (11) Conduct Battlefield PsyOps** — Conduct psychological activities as an integral part of combat operations to bring psychological pressure to bear on enemy

forces and civilians under enemy control in the battle area, to assist in the achievement of tactical objectives in support of maneuver commander's concept and intent.

6. **CCF (12) Employ Chemical Weapons** — Employ chemical agents or other means to degrade enemy capabilities in support of maneuver commander's concept and intent.

7. **CCF (13) Conduct Counter Target Acquisition Operations** —Suppress (e.g. using smoke or dazzling illumination) or degrade enemy direct observation, optics, radar, sensors, electronic DF equipment, and imaging systems in support of maneuver commander's concept and intent.

8. **CCF (14) Employ Naval Gunfire** — The means and ends to provide naval gunfire in support of the maneuver commander's tactical operation.

9. **CCF (15) Coordinate, Synchronize and Integrate Fire Support** — Coordination of all fire support means in support of the maneuver commanders concept and intent. This CCF addresses the preparation and execution of tasks necessary to integrate the fire support detailed in the OPORD. The CCF integrates CCF 7-14 in support of maneuver commander's concept and intent.

IV. **Air Defense BOS** — The means and measures organic or assigned to the maneuver commander which when employed successfully will nullify or reduce the effectiveness of attack by hostile aircraft or missiles after they are airborne.

1. **CCF (16) Take Active Air Defense Measures** — Application of firepower to destroy enemy air targets. This CCF addresses the coordinating tasks which enable the maneuver commander to successfully employ any attached or assigned air defense weapons system as well as the tasks necessary to employ all organic weapons systems against enemy air targets. This CCF addresses:

   a. Employment of Air Defense Artillery guns and missiles.
   b. Employment of maneuver unit weapons systems such as small arms, automatic weapons, BFV 25 mm and TOW missiles, tank main gun against enemy air.
   c. Airspace management.
   d. Early warning.
   e. Sustainment.

2. **CCF (17) Take Passive Air Defense Measures** — The protection of the maneuver force from enemy air by means other than weapons. This CCF will focus on the preparation and execution phases of the battle. This CCF addresses:

   a. Early warning.
   b. Dispersion.
   c. Cover and concealment.
   d. Air watch.
   e. Deception.

V. **Command and Control BOS** — The way and means a maneuver commander exercises authority and direction over organic and assigned combat power in the accomplishment of the mission.

1. **CCF (18) Plan for Combat Operations** — The integration of all members of the combined arms team in the coordinated development of the maneuver unit Operations Order which will guide the activities of the combined arms team in conducting combat operations to accomplish assigned missions. The product/outcome of this CCF is a briefed, understood OPORD. This CCF addresses:

   a. Receipt and analysis of higher HQ OPORD.
   b. Issuance of Warning Order.
   c. Restated mission statement.
   d. Commander's estimate process/troop leading procedures.
   e. Commander's guidance.
   f. Mission analysis (includes course of action development).
   g. Decision brief to commander.
   h. Development of a synchronized OPORD.
   i. Reproduction and distribution of OPORD to all participants.
   j. Briefing of OPORD; understanding of order by participants.
   k. FRAGO planning and issue.

2. **CCF (19) Direct and Lead Unit during Preparation for the Battle** — The ways and means to prepare combined arms task force for the battle so that the combined arms task force is ready to support the maneuver commander's concept and intent. This CCF addresses:

   a. Commander's activities.
   b. Communicating information.
   c. Briefbacks and backbriefs.
   d. Rehearsals.
   e. Management of the means of communicating information.
   f. Maintaining and updating information and force status.
   g. Managing information distribution.
   h. Decisions to act or change ongoing actions.
   i. Confirming IPB through the reconnaissance effort.
   j. Determining actions to implement decisions.
   k. Providing command presence.
   l. Maintaining unit discipline.
   m. Synchronizing tactical operations (e.g., execution matrix DST).
   n. TOC operations (e.g., staff integration and battle tracking).
   o. Continuity of command.
   p. Second in command (2IC responsibilities).
   q. Continuous and sustained operations.
   r. Communications (e.g., planning, installation and operation of system, management, site selection).

3. **CCF (20) Direct and Lead Units in Execution of Battle** — The ways and means to command and control in the combined arms task force execution of the battle plan (engaging the enemy in battle) to accomplish the maneuver commander's concept and intent. This CCF addresses:

   a. Directing the conduct of the battle.
   b. Issue orders.
   c. Command presence.
   d. Information distribution.
   e. Decide on need for action or change.
   f. Maintaining unit discipline.
   g. Synchronizing tactical operations.

h. TOC operations (includes CP displacement, security, survivability).
i. Continuity of command (e.g., C2 redundancy).
j. Second in command (2IC) responsibilities.
k. Continuous and sustained operations.
l. Consolidation and reorganization.

VI. **Mobility and Survivability BOS** — The ways and means of the force that permit freedom of movement, relative to the enemy, while retaining the task force ability to fulfill its primary mission as well as the measures the force takes to remain viable and functional by protection from the effects of enemy weapons systems and natural occurrences.

1. **CCF (21) Overcome Obstacles** — Enabling the maneuver force to maintain its mobility by removing or clearing/reducing natural and man-made obstacles. This CCF will initiate after receipt of the OPORD and address subordinate echelon planning as well as task force preparation and execution tasks necessary to achieve the maneuver commander's concept and intent. This CCF addresses:

   a. Breach obstacle. Clearing a path or lane for personnel and equipment through a battlefield obstacle.
   b. Cross gaps. Passing through or over any battlefield terrain feature, wet or dry, that is too wide to be overcome by organic/self bridging.

2. **CCF (22) Enhance movement** — Provision of adequate mobility for the maneuver unit in its area of operations. This CCF addresses:

   a. Construction and repair of combat roads and trails.
   b. Construction or repair of forward airfields.
   c. Facilitating movement on routes. (This includes control of road traffic and control of refugees and stragglers.)
   d. Tracking status of routes.
   e. Host nation support.

3. **CCF (23) Provide Countermobility** — Delaying, channeling, or stopping offensive movement by the enemy consistent with the commander's concept and intent by enhancing the effectiveness of friendly direct and indirect weapons systems. This CCF addresses:

   a. Emplacement of mines and complex obstacles.
   b. Digging tank ditches.
   c. Creation of road craters with explosives.
   d. Terrain enhancement.

4. **CCF (24) Enhance Physical Protection** — Providing protection of friendly forces on the battlefield by enhancing the physical protection of personnel, equipment and weapons systems, and supplies. This CCF addresses:

   a. Construction of fighting positions.
   b. Preparation of protective positions.
   c. Employment of protective equipment.

5. **CCF (25) Provide Operations Security** — Denying information to the enemy about friendly capabilities and intentions by identifying, controlling, and protecting indicators associated with planning and conducting military operations. This CCF addresses:

a. Analysis to determine key assets and threats to them.
b. Cover and concealment.
c. Camouflage.
d. Noise and light discipline.
e. Counter reconnaissance.
f. Smoke/obscurants.
g. Physical security measures.
h. Signal security.
i. Electronic security.

6. **CCF (26) Conduct Deception Operations** — Taking actions to mask the real objectives of tactical operations in order to delay effective enemy reaction. This CCF addresses:

   a. Physical deception.
   b. Electronic deception.

7. **CCF (27) Provide Decontamination** — Making any person, object or area safe by absorbing, destroying, neutralizing, making harmless or removing chemical or biological agents, or by removing radioactive material. This CCF addresses:

   a. Decontamination of individual soldiers and equipment.
   b. Decontamination of weapon systems and supplies.
   c. Hasty and deliberate decontamination.

VII. **Combat Service Support BOS** — The support, assistance and service provided to sustain forces, primarily in the area of logistics, personnel services and health services.

1. **CCF (28) Provide Transport Services** — Providing or coordinating for transportation which will assure sustainment support operations in support of the maneuver commander. Upon receipt of an OPORD, this CCF addresses preparation and execution tasks necessary to achieve transportation support of the maneuver force. This CCF addresses:

   a. Movement of cargo, equipment and personnel by surface or air.
   b. Loading, transloading and unloading material and supplies.

2. **CCF (29) Conduct Supply Operations** — Providing the items necessary to equip, maintain and operate the force during the preparation and execution phases of the battle. This CCF addresses:

   a. Requesting, receiving, procuring, storing, protecting, relocating and issuing supplies to the specific elements of the force.
   b. Providing munitions to weapons systems.
   c. Providing fuel and petroleum products to equipment and weapons systems.
   d. Reporting status.

3. **CCF (30) Provide Personnel Services** — Management and execution of all personnel-related matters to sustain the force. This CCF addresses:

   a. Personnel Administrative Services.
      1) Replacement, casualty reporting.
      2) Awards and decorations.

3) Postal Operations.
4) Promotions, reductions.

b. Financial services.
c. Unit Ministry team.
d. Legal.
e. Public Affairs.
f. Reporting personnel status.
g. Preservation of the force through safety.
h. Management of stress.

4. **CCF (31) Maintain Weapons Systems and Equipment** — Preservation and repair of weapons systems and equipment. This CCF includes the provision of repair parts and end items to all members of the combined arms team before, during and after the battle. Included also is doctrinal echeloning of maintenance (organization, DS, GS). This CCF addresses:

a. Preventative Maintenance.
b. Recovery.
c. Diagnosis, substitution, exchange, repair and return of equipment and weapons systems to the combined arms force.
d. Reporting status.

5. **CCF (32) Provide Health Services** — Performance, provision or arrangement for health services regardless of location, to promote, improve, conserve or restore the mental or physical well-being of individuals or groups. This CCF addresses

a. Preventive medicine.
b. Field sanitation.

6. **CCF (33) Treat and Evacuate Battlefield Casualties** — Application of medical procedures on battlefield casualties beginning with "buddy aid" through trained medical personnel. The CCF includes movement of casualties from the forward edge of the battlefield back to division-level medical facilities. This CCF addresses:

a. Triage of battlefield casualties.
b. Treatment and movement of casualties to rear (medevac).
   1) Identification of levels of care and locations.
   2) Synchronization and coordination of movement of medical facilities to ensure continuity of care.
   3) Establishment and maintenance of communications with redundant means.
   4) Rehearsals.
   5) Resupply.
c. Evacuation:
   1) Ground ambulance.
   2) Aero medevac.
   3) Non-standard evacuation.
d. Handling and processing the remains of soldiers who have died of wounds.
e. Reporting status.

7. **CCF (34) Conduct Enemy Prisoners of War (EPW) Operations** — The collection, processing, evacuation and safeguarding of enemy prisoners of war. This CCF addresses:

a. Collecting and evacuating EPW.
b. Searching, segregating, safeguarding, silencing, and rapid rearward movement of EPW.

8. **CCF (35) Conduct Law and Order Operations** — Enforcement of laws and regulations and maintenance of units and personnel discipline.

9. **CCF (36) Conduct Civil Affairs Operations** — Conduct of those phases of the activities of a tactical commander which embrace the relationship between the military forces and civil authorities, and the citizens in a friendly or occupied country or area when U.S. military forces are present.

10. **CCF (37) Provide Sustainment Engineering** — The repair and construction of facilities and lines of communication. This CCF addresses:

    a. Rear area restoration.
    b. Construction and maintenance of lines of communication (roads, railroads, ports, airfields).
    c. Construction support:
        1) Marshaling, distribution and storage facilities.
        2) Pipelines.
        3) Fixed facilities.
        4) Drill wells.
        5) Dismantlement of fortifications.

11. **CCF (38) Evacuate Non-combatants from Area of Operations** — The use of available military and host-nation resources for the evacuation of US forces, dependents, US government civilian employees, and private citizens (US and other). This CCF addresses:

    a. Medical support.
    b. Transportation.
    c. Security.
    d. Preparation of temporary shelters.
    e. Operation of clothing exchange facilities.
    f. Operation of bathing facilities.
    g. Graves registration.
    h. Laundry.
    i. Feeding.

12. **CCF (39) Provide Field Services** — Performance of service logistics functions by and for Army elements in the field. This CCF addresses:

    a. Clothing exchange.
    b. Bathing facilities.
    c. Graves registration.
    d. Laundry and clothes renovation.
    e. Bakeries.
    f. Feeding (rations supply, kitchens).
    g. Salvage.

OUTCOMES AND PURPOSE OF CCF 9

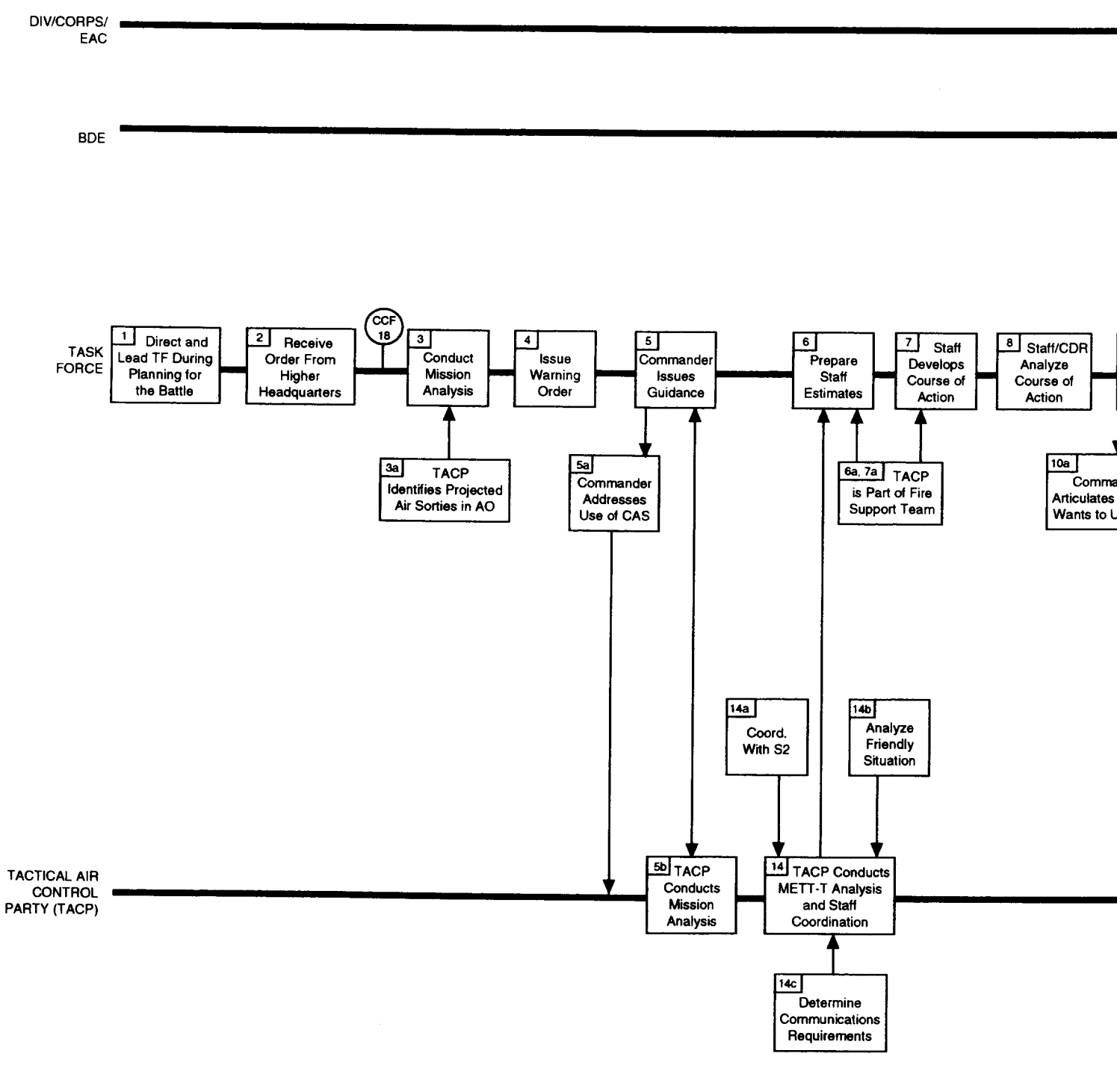
OUTCOMES

1. CAS supports task force ground scheme of maneuver.
2. Air delivered firepower neutralizes enemy ability to counter ground maneuver.
3. Delivery of air fires does not interfere with other task force direct or indirect engagements.
4. Delivery of air fires does not interfere with task force maneuver.
5. Task force use of other supporting fires does not interfere with delivery of air fires.
6. Air delivered firepower does not result in fratricides to ground forces; and, there are no fratricides to friendly air forces.

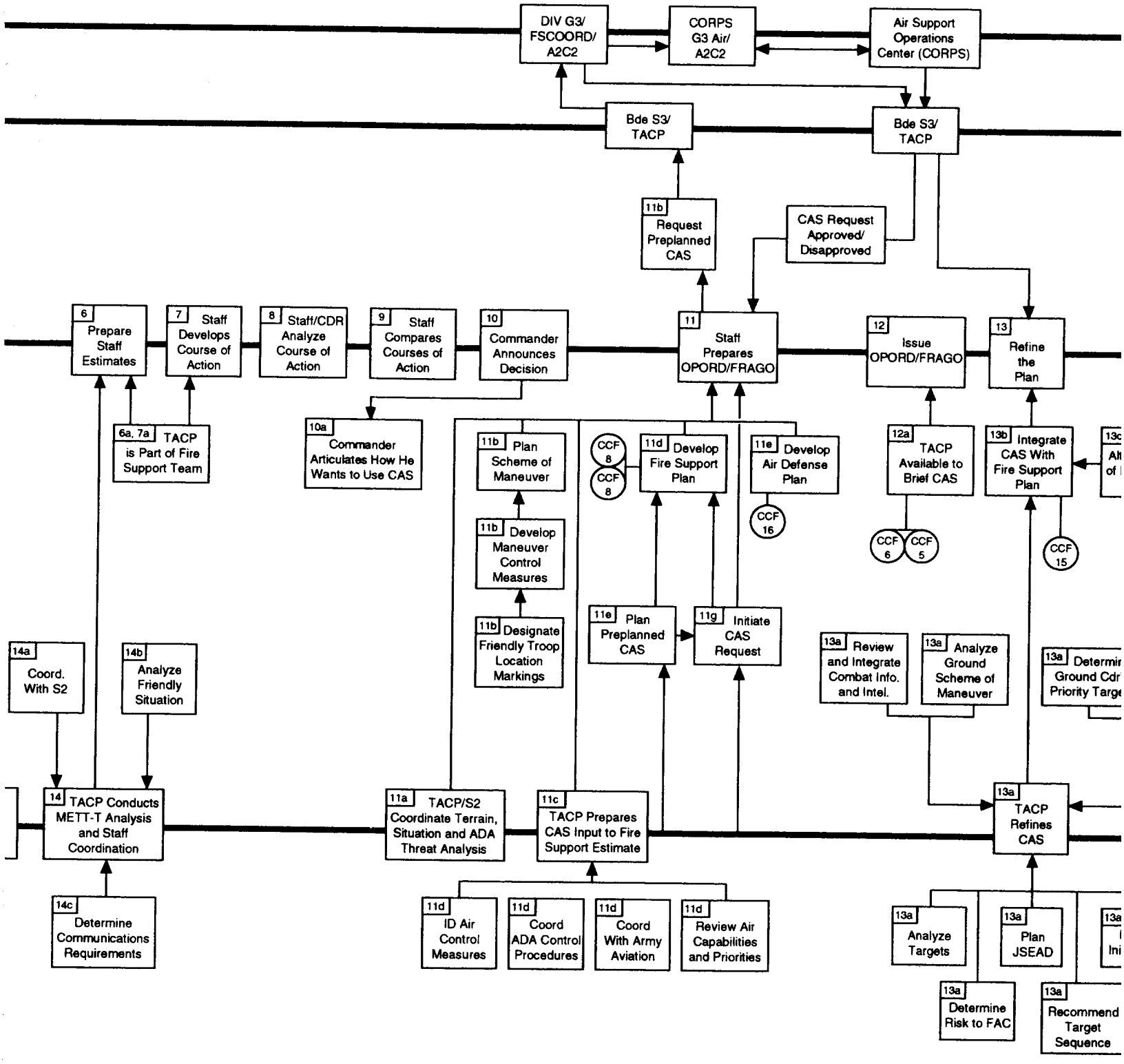
PURPOSE

To provide responsive and concentrated, air delivered, fire power in coordination with the fire and maneuver of the task force ground forces.

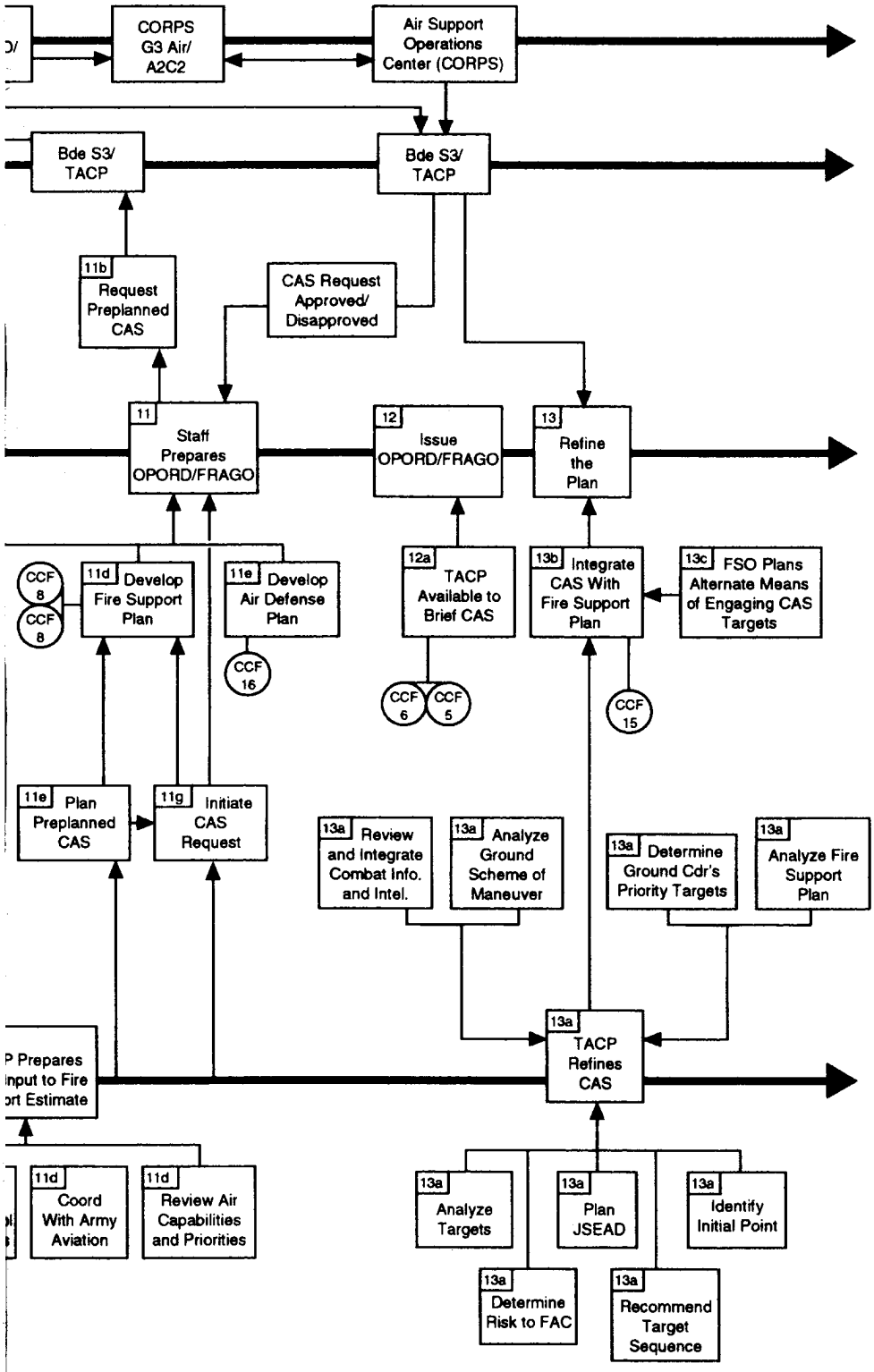
TASK FLO
PLAN



TASK FLOW PLAN



CCF 9 — Employ Close Air Support



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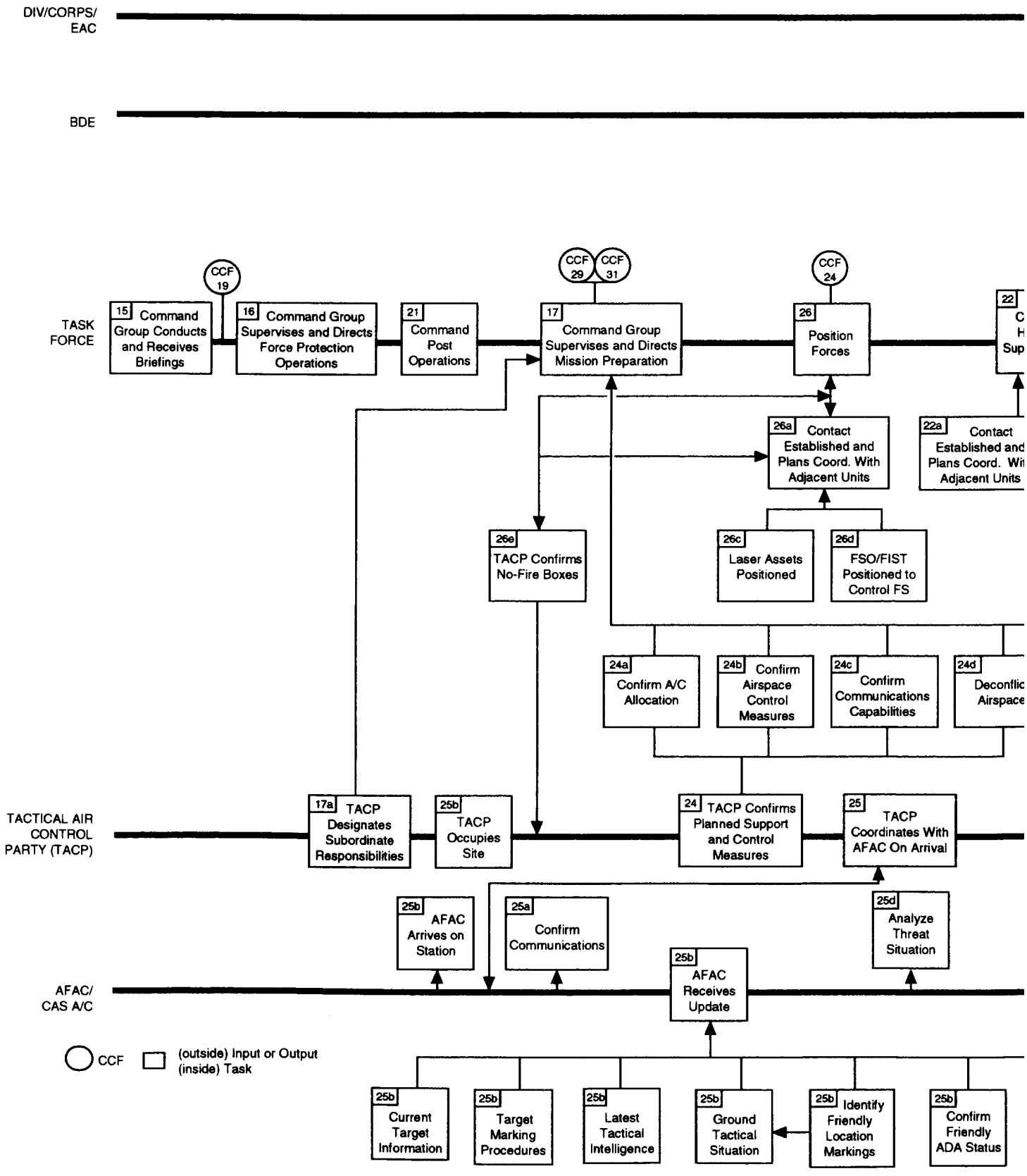
PREPAR



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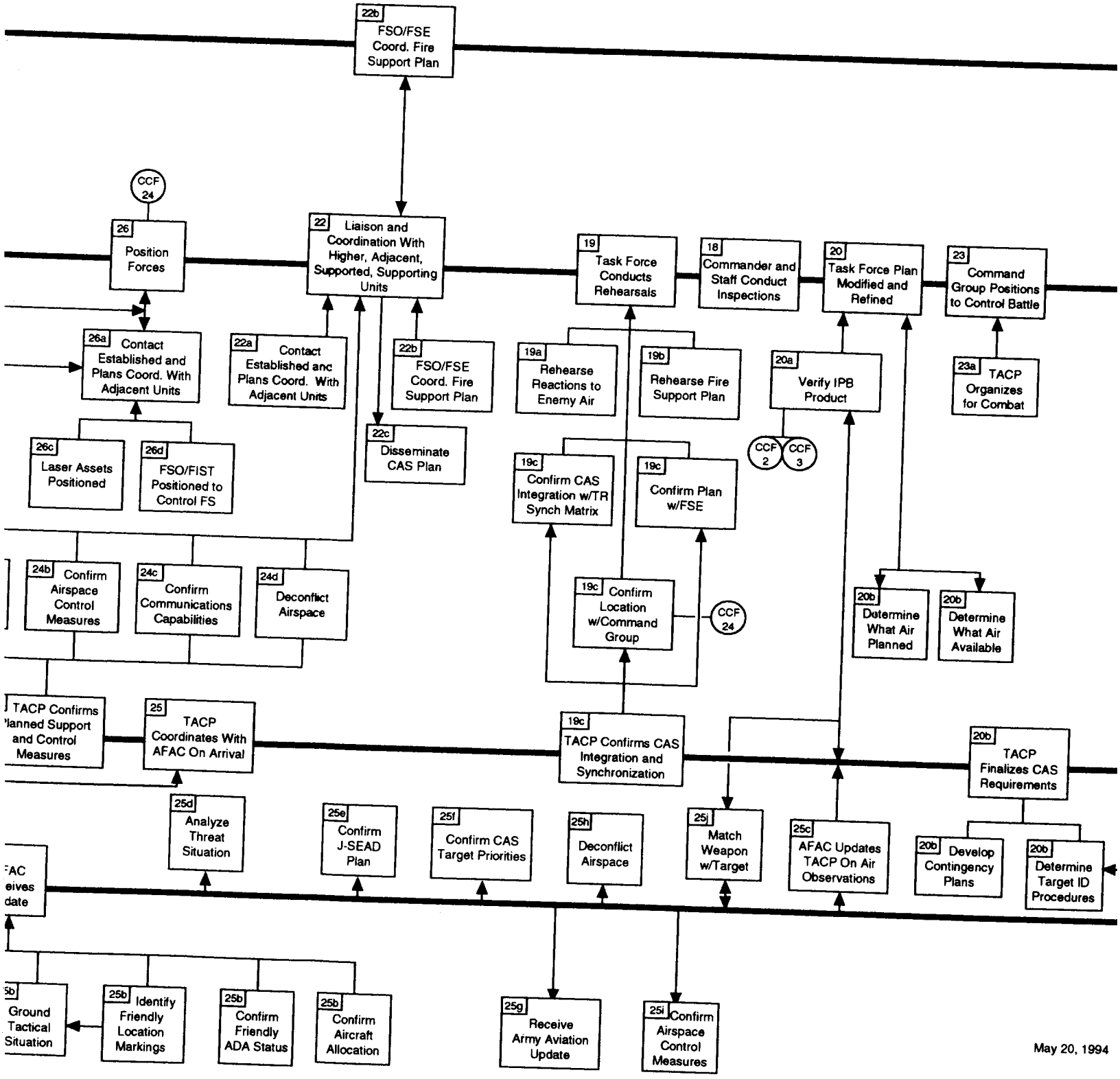
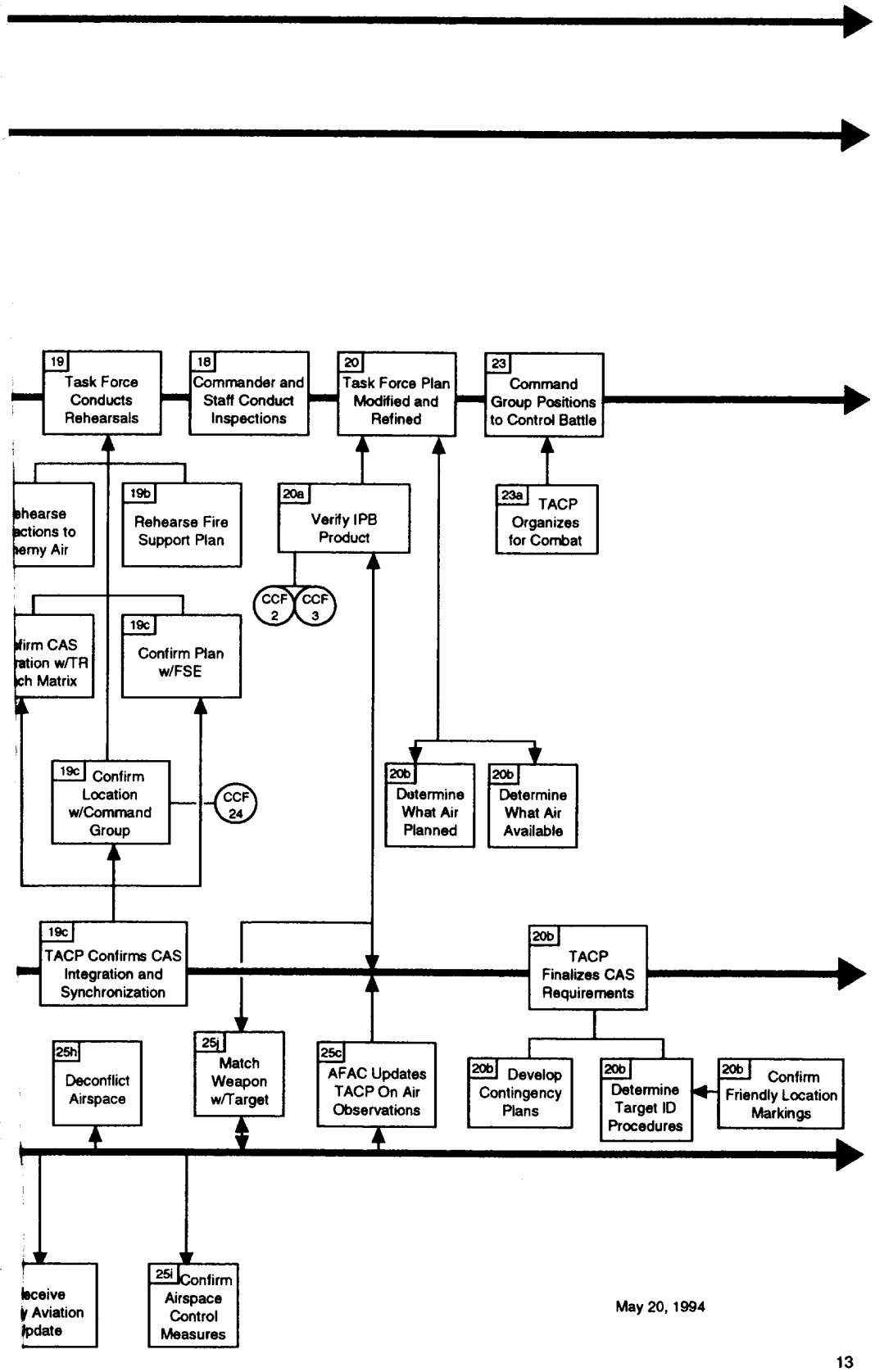
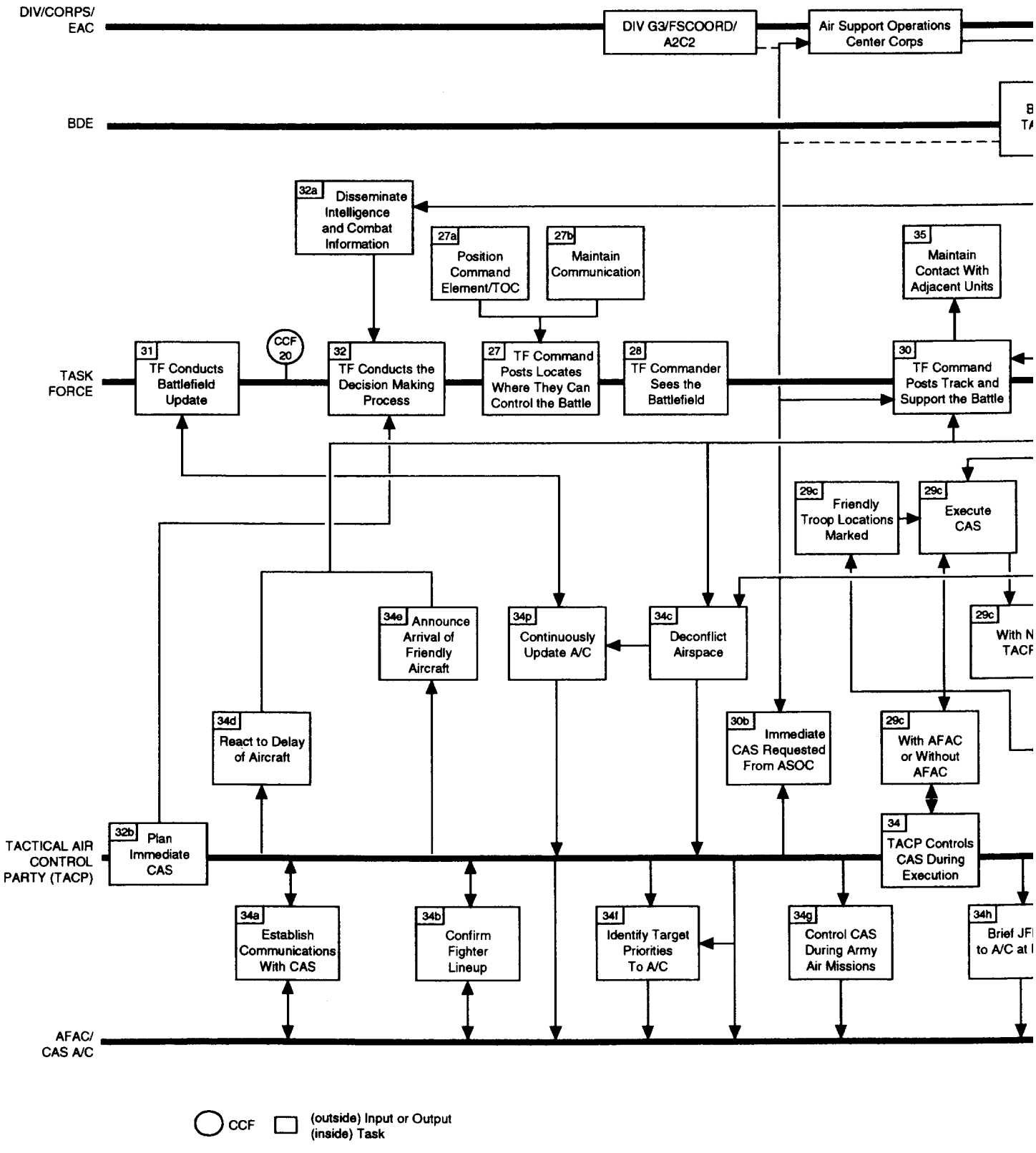


CCF 9 — Employ Close Air Support

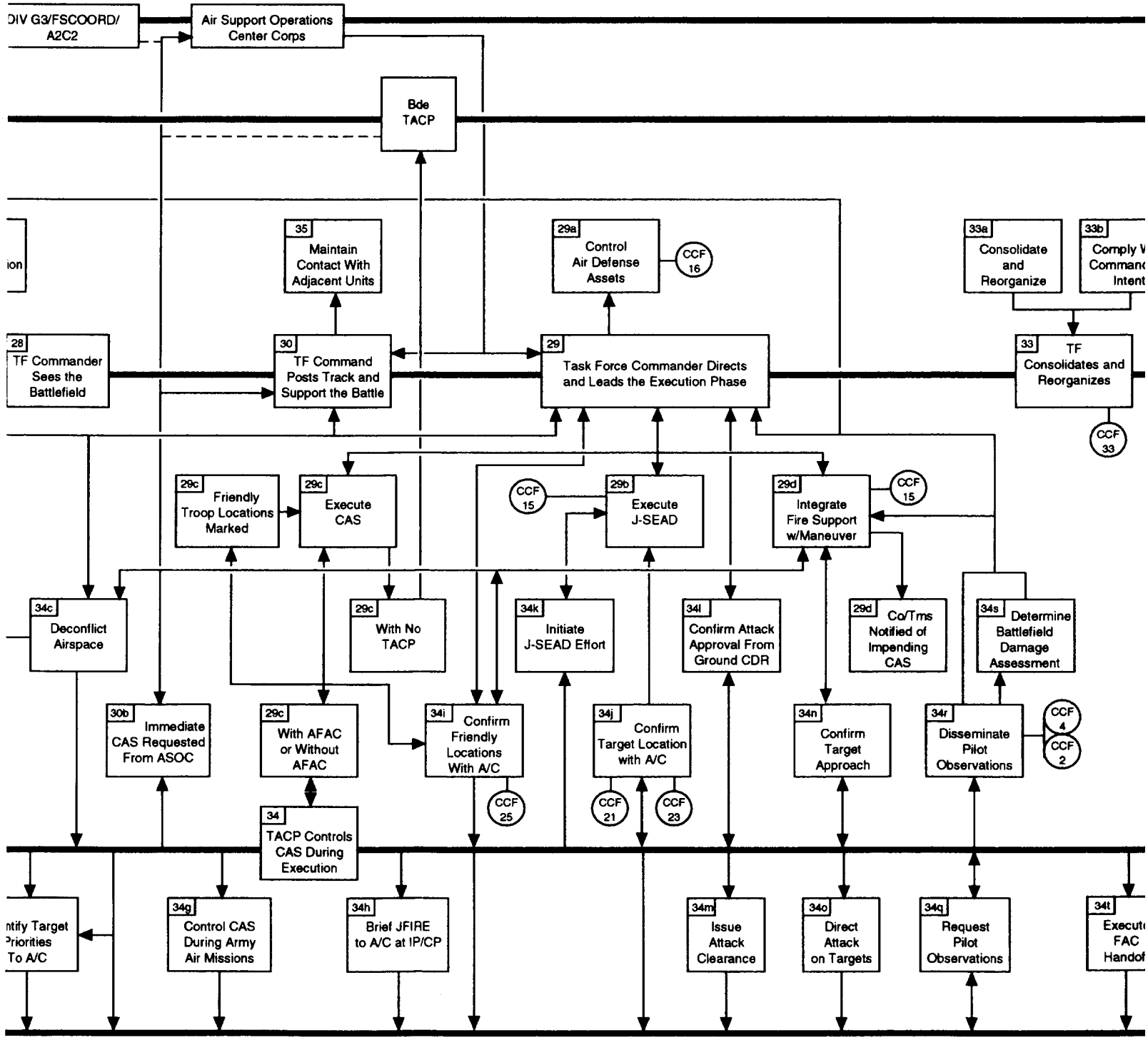


May 20, 1994

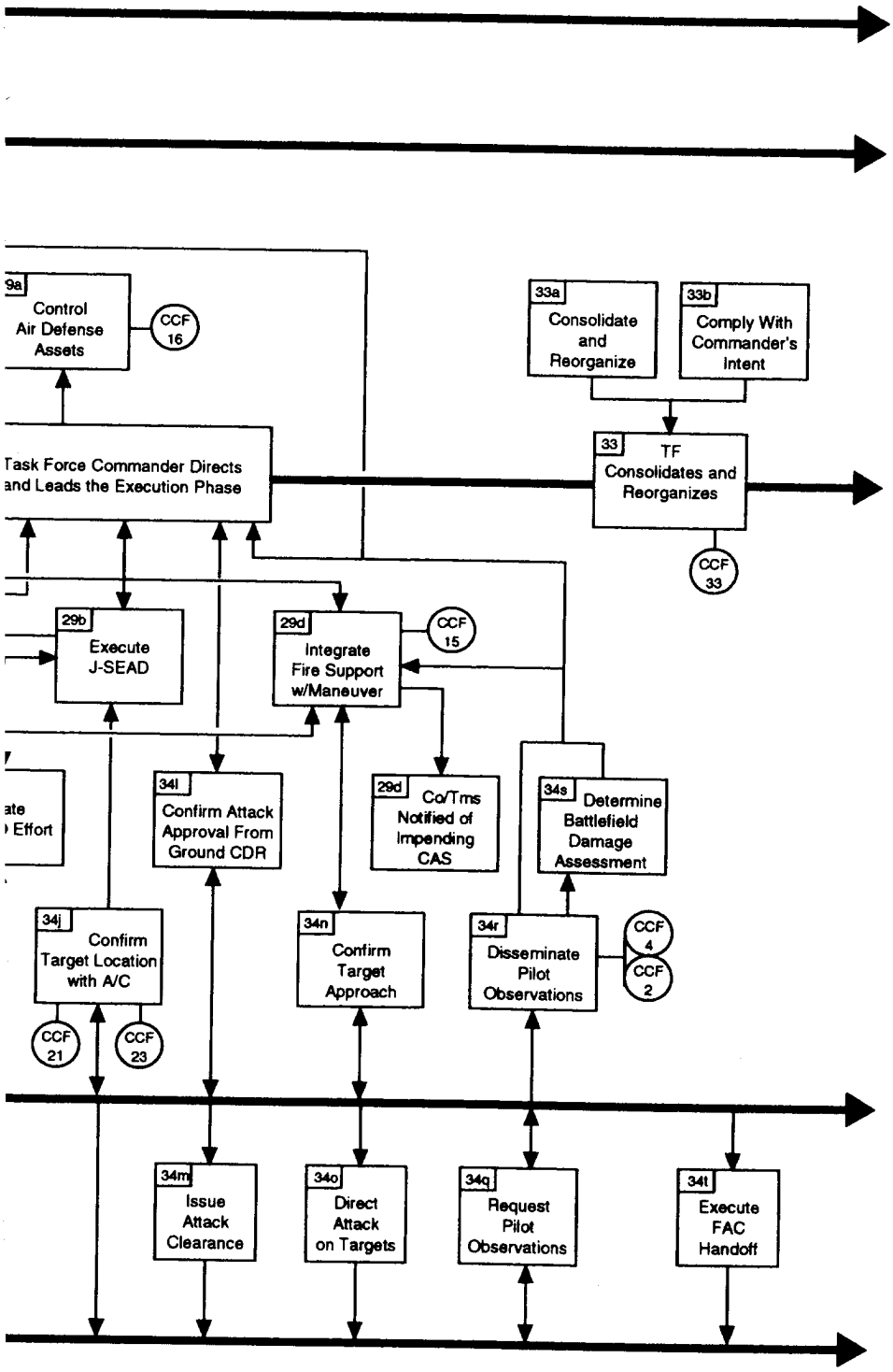
TASK FL
EXECU



TASK FLOW
EXECUTE



CCF 9 — Employ Close Air Support



OTHER CCF WHICH INTERACT WITH CCF 9

CCF #	TITLE	LOGIC
CCF 1	Conduct Intelligence Planning	The intelligence plan develops the knowledge of weather, enemy and terrain necessary to identify suitable CAS targets and to determine the locations and activities of enemy air defense systems.
CCF 2	Collect Information	Pilot observations of the target area and surrounding activities are collected and transmitted to the task force.
CCF 3	Process Information	CAS planners are integrated into the information processing system to refine and modify target information and SEAD requirements.
CCF 4	Disseminate Intelligence	CAS planners require constantly updated knowledge of enemy situation, particularly air defense systems, in order to provide responsive and effective close air support.
CCF 5	Conduct Tactical Movement	Knowledge of friendly troop locations during task force movement and positioning is critical to planning and execution of CAS.
CCF 6	Engage Enemy with Direct Fire and Maneuver	Knowledge of friendly troop locations during task force direct fire and maneuver is critical to planning and execution of CAS. Direct fire fight will often dictate the need, and location, for CAS.
CCF 7	Employ Mortars	Mortar fires must be planned, coordinated, synchronized, and controlled to provide maximum fires (destruction, obscuration, or SEAD) on the enemy while not interfering with the employment of CAS.
CCF 8	Employ Field Artillery	Artillery fires must be planned, coordinated, synchronized, and controlled to provide maximum fires on the enemy while not interfering with the employment of CAS. Responsive and accurate artillery fires are key to successful SEAD. Artillery fire control personnel and systems (FSE, FIST-Vs, COLTs, FOs) may be needed to control CAS.
CCF 15	Coordinate, Synchronize and Integrate Fire Support	CAS must be integrated with all other fire support means used in support of the commander's concept. Artillery assets under task force control (FSE, FIST-Vs, COLTs, FOs) are positioned with maneuver units to assist in the request for and control of CAS.

CCF #	TITLE	LOGIC
CCF 16/17	Take Active/Passive Air Defense Measures	Air defense measures must be planned and executed to avoid interference with CAS. CAS must be closely coordinated with the air defense system to avoid fratricides.
CCF 18	Plan for Combat Operations	Commander's intent for fire support and the task force scheme of maneuver are critical input to CAS planning; CAS planning must be integrated with other fire support planning to support commander's concept. Plans required for rescue/recovery of downed air crews.
CCF 19	Direct and Lead During Preparation for the Battle	Leadership and supervision are required to insure the preparation, coordination, and synchronization of CAS with maneuver and other fires is completed. CAS plan and coordination is confirmed during task force and fire support rehearsals.
CCF 20	Direct and Lead Units in Execution of Battle	CAS must be integrated into the battle. Command synchronization of CAS with other direct and indirect fires is critical to successful employment.
CCF 21	Overcome Obstacles	CAS fires useful against hard, stationary, targets (such as defensive positions protected by obstacles) that cannot be effectively reduced by other fire support systems.
CCF 23	Provide Countermobility	In addition to air delivered mines (GATOR), the size and accuracy of air delivered munitions make them particularly suitable for the destruction of roads and bridges in the tactical area of operations.
CCF 24	Enhance Physical Protection	Use of protective equipment, positions and/or terrain to protect the TACP or ground FAC while in a position on the battlefield to observe and direct CAS.
CCF 25	Provide Operations Security	Measures taken to hide friendly units and positions from enemy aircraft hinder the location and identification of friendly troops by friendly aircraft. Measures must be planned to remove OPSEC measures, as appropriate, to identify and mark friendly positions for CAS aircraft.
CCF 29	Conduct Supply Operations	Measures taken to insure special supplies for continuous TACP operations are on hand, if required.

CCF #	TITLE	LOGIC
CCF 31	Maintain Weapons Systems and Equipment	Organizational maintenance of all fire support control related equipment (FIST-Vs, COLTs, FO, etc.) necessary to insure availability for use to assist in the control of CAS.
CCF 33	Treat and Evacuate Battlefield Casualties	Plans required to treat and evacuate TACP and/or rescued air crew members of aircraft shot down in the TF AO.

CCF 9 KEY PARTICIPANTS BY TASK

TASKS	KEY PARTICIPANTS
1. Direct and Lead Task Force During Planning for the Battle	TF Cdr, S3, Co/Tm Cdrs, Subordinate Unit Cdrs
2. Receive Order From Higher Headquarters	TF XO, S3 Rep., S2 Rep.
3. Conduct Mission Analysis	
4. Issue the Warning Order	Bde Cdr/S3, TF Cdr/S3, Co/Tm Cdrs, Sep Plt Ldrs
5. Commander Issues Guidance	TF Cdr, Staff
b. TACP conducts mission analysis	TACP, S3, FSO
6. Prepare Staff Estimates	TF S2, S3, FSO, TACP, S3 Air, ADA LNO, AVN LNO
7. Staff Develops Course of Action	TF XO, Staff
8. Staff/CDR Analyze Course of Action	TF CDR, XO, Staff
9. Staff Compares Courses of Action	TF CDR, XO, Staff
10. Commander Announces Decision	TF CDR, XO, Staff
11. Staff Prepares OPORD/FRAGO	TF XO, S3, S2, S1/4, FSO, Engr, ADAO, Chem Off
a. Intelligence	TF S2, TACP, FSO, S3 Air
b. Plan scheme of maneuver	TF Cdr, S3, Co/Tm Cdrs, FSO
c. TACP prepares CAS input to fire support plans	TACP, FSO, ADAO, S3 Air
d. Develop fire support plan	TF Cdr, S3, FSO, TACP, S3 Air, Co/Tm Cdrs, FISTs
e. Develop air defense plan	ADAO, FSO, S3 Air, TACP
f. Plan preplanned CAS	S3, S2, FSO, TACP, S3 Air
g. TACP initiates CAS request	TACP, S3, S3 Air

TASKS	KEY PARTICIPANTS
12. Issue the OPORD/FRAGO	TF Cdr/Staff, Co/Tm Cdrs, Sep Plt Ldrs
13. Refine the Plan	TF XO, S3, S2, S1/4, FSO, ADAO, Engr
a. TACP refines close air support	TACP, FSO, ADAO, S3 Air, AVN LNO
b. Integrate CAS with fire support plan	S3, FSO, TACP, ADA LNO, AVN LNO
14. TACP Conducts METT-T Analysis and Staff Coordination	TACP, S2, S3, FSO, ADAO, Sig O
15. Command Group Conducts and Receives Briefings	TF Cdr/S3, Co/Tm Cdrs, Sep Plt Ldrs
16. Command Group/Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities	
17. Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation	
a. TACP designates subordinate responsibilities	
18. Commander, Commander's Representatives, and Staff Conduct Inspections and Visits	
19. Task Force Conducts Rehearsals	
a. Rehearse reactions to enemy air	TF Cdr/Staff, Co/Tm Cdrs, ADA unit
b. Rehearse fire support plan	TF CDR, S3, FSO, FISTs, TACP, Co/Tm Cdrs, Plt Ldrs
c. TACP confirms CAS integration and synchronization	TACP, S3, FSO, ADAO, S3 Air, AVN LNO
20. Task Force Plan Modified and Refined	
a. Verify IPB product	TF S3/S2, Sct Plt, GSR, Co/Tm Cdrs, TACP, AFAC
b. TACP finalizes CAS requirements	TACP, FSO, BDE TACP
21. Command Post (TAC, TOC, CTCP) Operations	
22. Liaison and Coordination with Higher, Adjacent, Supported, and Supporting Elements	
a. Contact established plans coordinated with adjacent units	TF Cdr, S3, FSO, S3 Air, TACP

TASKS	KEY PARTICIPANTS
b. FSO/FSE coordinate fire support plan	FSO, FSE, S3, FISTs, TACP, Co/Tm Cdrs
c. Disseminate CAS plan	FSO, TACP, FISTs
23. Command Group/Command Posts Position to Control the Battle	
a. TACP organizes for combat	TACP, FSO
24. TACP Confirms Planned Support and Control Measures	
a. Confirm aircraft allocation	TACP, BDE TACP/S3 Air, DIV TACP/G3 Air
b. Confirm airspace control measures	TACP, FSO, ADAO, AVN LNO, BDE TACP/S3 Air
c. Confirm communications capability	TACP, FSO, AVN LNO, BDE TACP, AFAC
d. Deconflict airspace	TACP, FSO, ADAO, AVN LNO, BDE TACP/S3 Air
25. TACP Coordinates with AFAC on Arrival	
a. Confirm communications	TACP, FSO, AVN LNO, BDE TACP, AFAC, Flight Leader
b. AFAC receives update	TACP, AFAC, S2, S3 Air, FSO, ADAO
c. AFAC updates TACP on air observations	TACP, AFAC, S2, S3
d. Analyze Threat Situation	TACP, AFAC, S2
e. Confirm JSEAD plan	TACP, FSO, AFAC
f. Confirm CAS target priorities	TACP, FSO, AFAC, TF CDR, S3
g. Receive Army Aviation update	TACP, AFAC, AVN LNO
h. Deconflict airspace	TACP, AFAC, S3 Air, FSO, ADAO, AVN LNO
i. Confirm airspace control measures	TACP, BDE TACP, AFAC, S3 Air, FSO, ADAO, AVN LNO
j. Match weapon with target	TACP, AFAC, Flight Leader

TASKS	KEY PARTICIPANTS
26. Position Forces	TF Cdr, S3, Co/Tm Cdrs, Sep Plt Ldrs, TACP
27. TF Command Posts Locate Where They Can Control the Battle	
a. Position command element/TOC	TF Cdr, S3, S2, FSO, Engr, TACP, ADAO
b. Maintain communications	All Combined arms team
28. TF Commander Sees the Battlefield	
29. TF Commander Directs and Leads the Execution Phase	
a. Control air defense assets	TOC, ADA Plt Ldr, Co/Tm Cdrs, Attached unit Cdrs, Plt Ldrs
b. Execute J-SEAD	FSO, TACP, S3, Maneuver Units
c. Execute CAS	TACP, AFAC, Flight Leader
d. Integrate fire support with scheme of maneuver	TF Cdr, S3, FSO, TACP, Co/Tm Cdrs, Mort Plt, FISTs
30. TF Command Posts Track and Support the Battle	
a. Immediate CAS requested from TACP to ASOC	TACP, TF CDR, S3
31. TF Conducts Battlefield Update (METT-T based)	
32. TF Conducts the Decision Making Process (Accelerated)	
a. Disseminate intelligence and combat information	TF Cdr, S3, S2, TOC, Co/Tm Cdrs, FSO, TACP, FISTs
b. Plan immediate CAS	S3, FSO, TACP, S3 Air, S2

TASKS	KEY PARTICIPANTS
33. TF Consolidates and Reorganizes	
a. Consolidate and reorganize	TF S3, FSO, TACP, Co/Tm Cdrs, Attached units
b. Comply with commander's intent	All combined arms team
34. TACP Controls CAS Aircraft During Execution	
a. Establish communications with CAS	TACP, AFAC, Flight Leader
b. Confirm Fighter line-up	TACP, AFAC, Flight Leader
c. Deconflict airspace	TACP, AFAC, S3 Air, FSO, ADAO, AVN LNO
d. React to delay of aircraft	TF CDR, TACP, AFAC, FSO, S3
e. Announce arrival of friendly air	TACP, S3 Air, FSO, ADAO
f. Identify target priorities to pilots	TACP, AFAC, FSO, S3
g. Control CAS during Army Aviation missions	TACP, AFAC, Flight Leader
h. Brief JFIRE (9 Line) to aircraft at IP/CP	TACP, AFAC, Flight Leader
i. Confirm friendly locations with aircraft	TACP, AFAC, S3, FSO, FISTS
j. Confirm target locations with aircraft	TACP, AFAC, FSO, FISTs
k. Initiate JSEAD effort	TACP, AFAC, FSO
l. Confirm attack approval from ground commander	TF CDR, S3, TACP, AFAC
m. Issue attack clearance	TACP, AFAC, Flight Leader
n. Confirm target approach	TACP, AFAC, FSO, FIST, Maneuver Cdrs
o. Direct attack on targets	TACP, AFAC, FISTs, Flight Leader
p. Continuously update aircraft	TACP, AFAC, S2, S3 Air, FSO, S3
q. Request pilot observations	TACP, AFAC, S2, S3
r. Disseminate pilot observations	TACP, FSO, S2, S3, TOC

TASKS	KEY PARTICIPANTS
s. Determine Battle Damage Assessment	AFAC, TACP, FIST, Flight Leader
t. Execute FAC handoff	AFAC, TACP
35. Maintain Contact with Adjacent Units	TOC, S3, S2, S3 Air, FSO, TACP

KEY INPUTS AND OUTPUTS TO CCF 9
(WITH CRITICAL INFORMATION)

KEY INPUTS

TF-1 TASK FORCE OPORD

a. Commander's intent.
b. Designation of routes, axis, areas, sectors or battle positions; priorities of movement.
c. Designation of main effort and scheme of maneuver.
d. Event and decision support templates.
e. Requirements and control measures for airspace management.
f. Ground and air maneuver restrictions.
g. TAC, TOC, Alt TOC locations.
h. Rules of engagement and acceptable level of risk.

TF-2 TASK FORCE INTELLIGENCE ANNEX

a. Terrain analysis.
b. Weather analysis (impact of forecasted weather on air operations).
c. Enemy analysis and integration (location and activities of enemy air defense).
d. Priority intelligence requirements (PIRs).
e. Named and targeted areas of interest (NAIs and TAIs).
f. Situation, event, and decision support templates.

TF-3 TASK FORCE FIRE SUPPORT ANNEX/FSE

a. Fire plan/fire support execution matrix.
b. Planned displacements.
c. Priority of fires and priority targets.
d. Suppression of enemy air defense (SEAD) capabilities, priorities, and requirements.
e. Type of SEAD available.
f. Locations of restrictive fire support coordinating measures (such as RFL, FSCL, no-fire areas, etc.).
g. Airspace Coordination Areas (ACAs).
h. Location of indirect fire assets, such as artillery guns, Multiple Launched Rocket Systems, and mortars.
i. Gun-target lines.
j. Movement sequence, to include timing and new locations.
k. Planned targets, target types, and sequence of engagement.
l. Maximum ballistic altitudes.
m Target identification procedures.
n. Lazer target designator assets.

TF-4 TASK FORCE AIR DEFENSE ANNEX

a. Positioning of air defense systems within formations and areas/positions.
b. ADA activation procedures and early warning net.
c. ADA restrictive operation areas (ROAs) and weapons free zones.

AS-1 AIR SUPPORT OPERATIONS CENTER DIRECT INPUT

a. Aircraft mission data in response to approved immediate CAS request.
   1) Mission number.
   2) Aircraft call sign.
   3) Number and type of aircraft.
   4) Ordinance carried.
   5) Time on target.

B-1 BRIGADE TACP, S3 AIR, AND/OR FIRE SUPPORT ELEMENT

a. Air control measures.
   1) Coordinating altitude (from above ground level [AGL]).
   2) High density airspace control zone (HIDACZ).
   3) Restricted Operations Zones (ROZ).
   4) Air ingress/egress routes.
   5) Airspace Coordination Areas (ACA).
   6) Contact Points/Initial Points (CP/IP).
   7) Helicopter air corridors.
   8) Minimum Risk Routes (MRR).
   9) Engagement Areas.

b. Army Aviation activities in AO.
   1) Constraints and limitations in altitude and routes.
   2) Critical ground locations, such as landing zones, Forward Arming and Refueling Points (FARP), battle positions, and aerial observation positions (AOPs).
   3) Helicopter areas of operation (routes, lift, attack).

c. Unmanned Air Vehicle areas of operation.

d. IFF codes.

e. Air Tasking Order (ATO) information (what air is planned and what air is available).
   1) Type of aircraft.
   2) When the aircraft will arrive.
   3) How long aircraft will remain on station.
   4) Aircraft capabilities (munitions and Electronic Warfare [EW]).
   5) Projected sortie allocation.
   6) Air priority of effort in the AO.
   7) Projected tanker support.
   8) Projected Airborne Warning and Control System (AWACS).
   9) Projected fighter coverage.
   10) Projected suppression coverage (JSEAD and Weasel).

TF-5 TASK FORCE TACTICAL SOP

a. Passive and active air defense measures.
b. Duties and responsibilities of FSO and S3 Air in absence of TACP.
c. Target marking techniques and procedures.
d. Friendly troop location marking techniques and procedures.
e. Alternate means of communicating with CAS.
f. Alternate means of controlling CAS.

g. Formats for preplanned and immediate CAS requests.
h. TACP location, duties and responsibilities in TF TOC.
i. Procedure for exchange of CEOI and authentication materials information.

KEY OUTPUTS

CAS-1 DETAILED PLAN FOR CAS EMPLOYMENT

TASK LIST SUMMARY FOR CCF 9

See Task Analysis of interacting CCFs for detailed analysis of related planning, preparation and execution tasks. See CCF 18, 19 and 20 for analysis of planning, preparation and execution process and all command and control planning, preparation and execution tasks. CCF 18, Planning, tasks are identified as Tasks 1–13 in this list. CCF 19, Preparation, tasks are identified as Tasks 15–23 in this list. CCF 20, Execution, tasks are identified as Tasks 27–33 in this list. Additional and subordinate tasks identified are those tasks considered by the analyst to be critical to successfully employ close air support. Input and output/products of the process critical for CCF 9 are listed at pages 23 through 24. References are shown in parenthesis ( ) after the task title. Titles not taken directly from the MTP are marked with an asterisk (*). (See note on page 34.)

PLANNING

1. **Direct and Lead Task Force During Planning for the Battle** (ARTEP 71-2-MTP, Task 7-1-3904/6, 3905/2, 3905/4, 3028/3)

2. **Receive Order From Higher Headquarters** (FM 101-5; FM 71-123)

3. **Conduct Mission Analysis** (ARTEP 71-2-MTP, Task 7-1-3901/2, 3904/3; FM 101-5, Chap 4; FM 71-2, Chap 2; FM 71-123, Chap 1)

   a. TACP identifies projected air sorties in AO

4. **Issue the Warning Order** (ARTEP 71-2-MTP, Task 7-1-3901/1, 3902/2, 3904/2; FM 101-5, Chap 4; FM 71-2, Chap 2; FM 71-123, Chap 1)

5. **Commander Issues Guidance** (FM 101-5, Chap 4)

   a. Commander's guidance addresses priority of fires and, through the FSO, the use of CAS (FM 71-123, Chap 7)

   b. TACP conducts mission analysis (MCM 3-3, Vol VIII)

6. **Prepare Staff Estimates** (ARTEP 71-2-MTP, Task 7-1-3901/3; FM 101-5)

   a. TACP is part of fire support team

7. **Staff Develops Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap 4; FM 71-123, Chap 7)

   a. TACP/ALO is part of fire support team

8. **Staff/CDR Analyze Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap 4)

9. **Staff Compares Courses of Action** (FM 101-5, Chap 4; FM 71-123, Chap 7)

   a. TACP/ALO participates in COA comparison.

10. **Commander Announces Decision** (FM 101-5, Chap 4; FM 71-123, Chap 7)

    a. Commander articulates how he wants to use CAS resources.

11. **Staff Prepares OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/5; FM 101-5, Chap 4)

    a. Intelligence: TACP coordinated with the S2 on CAS specific requirements (in the absence of the TACP, the FSO/S3 Air coordinate and plan CAS)

       1) TACP coordinates with S2 on terrain analysis (ARTEP 71-2-MTP, Task 7-1-3906/1, 3909/1; MCM 3-3, Vol VIII)

       2) TACP and S2 coordinate analysis of enemy situation (MCM 3-3, Vol VIII)

       3) TACP and S2 determine enemy ADA threat (MCM 3-3, Vol VIII; TACP Pam 50-20

    b. Plan scheme of maneuver (FM 71-2, Chap 3,4; FM 71-123, Chap 3, 4, 5, 6; FM 5-100, Chap 6, 7; FM 3-100, Chap 10, 11; MTP 71-2, Task 7-1-3901/7, 3902/8)

       1) Defense - Defend, delay, withdrawal, rearward passage of lines.

       2) Offense - Attack, movement to contact, breakout.

       3) Identify maneuver control measures.

    c. TACP prepares close air support input to fire support estimate.

       1) Identify air control measures (MCM 3-3, Vol VIII; ATP 40; FM 100-103)

       2) Coordinate Air Defense Artillery control procedures (TAC Pam 50-20)

       3) Coordinate with Army Aviation (TAC Pam 50-20; FM 1-111)

4) Review air capabilities and priorities (TAC Pam 50-20; FM 6-20

d. Develop fire support plan (FM 71-2, Chap 6; FM 71-123, Chap 7; ARTEP 71-2-MTP, Task 7-1-3907/1, 3907/2, 3908/4, 3911/1; MCM 3-3, Vol VIII, Chap 16)

e. Develop air defense plan (ARTEP 71-2-MTP, Task 7-1-3902, 3904, 3911)

f. Plan preplanned CAS (ARTEP 71-2-MTP, Task 3907/2, 3908/4; FM 6-20-40, Chap 3, App A; FM 71-123, Chap 7)

g. TACP initiates Close Air Support (CAS) request (FM 90-21)

12. **Issue the OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/7, 3902/8, 3904/11; FM 101-5, Chap 4; FM 71-2, App B; FM 71-123, Chap 1)

a. TACP available to brief CAS portion of order.

13. **Refine the Plan** (ARTEP 71-2-MTP, Task 7-1-3901/8; FM 101-5, Chap 4)

a. TACP refines close air support

1) Analyze and integrate combat information and intelligence (TACM 3-1 VI)

2) Analyze ground scheme of maneuver (MCM 3-3, Vol VIII; TAC Pam 50-22)

3) Determine ground priority targets (MCM 3-3, Vol VIII)

4) Analyze fire support plan (MCM 3-3, Vol VIII; FM 6-20)

5) Analyze targets (TAC PAM 50-20;FM 6-20)

6) Determine risk to Airborne Forward Air Controller (AFAC) (MCM 3-3, Vol VIII)

7) Plan JSEAD (Joint Suppression of Enemy Air Defenses) (TAC Pam 50-20)

8) Recommend appropriate target sequence (MCM 3-3, Vol VIII; FM 6-20)

9) Identify Initial Point (MCM 3-3, Vol VIII)

b. Integrate CAS with fire support plan (ARTEP 71-2-MTP, Task 3907/3, 3908/4, 3908/5)

14. **TACP Conducts METT-T Analysis and Staff Coordination***

    a. Coordinate with S2 (MCM 3-3, Vol VIII)

    b. Analyze friendly situation (MCM 3-3, Vol VIII)

    c. Determine communication requirements (MCM 3-3, Vol VIII;TAC Pam 50-20)

PREPARATION

15. **Command Group Conducts and Receives Briefings**

16. **Command Group/Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities**

17. **Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation**

    a. TACP designates subordinate responsibilities (MCM 3-3, Vol VIII)

18. **Commander, Commander's Representatives, and Staff Conduct Inspections and Visits**

19. **Task Force Conducts Rehearsals** (ARTEP 71-2-MTP, Task 7-1-3901/7, 3024/7; FM 71-2, Chap 2; FM 71-123, Chap 2; FM 90-13-1, App D;)

    a. Rehearse reactions to enemy air

    b. Rehearse fire support plan

    c. TACP confirms CAS integration and synchronization (FM 6-20-40, App A; FM 71-123, Chap 7)

        1) Confirm CAS integration with TF Synch Matrix (FM 6-20)

        2) Confirm plan with Fire Support Element (FM 6-20)

        3) Confirm location with Command Group for TACP.

20. **Task Force Plan Modified and Refined**

    a. Verify IPB product (FM 71-2, Chap 2; FM 34-3, Chap 4; FM 3-100, Chap 2,4)

    b. TACP finalizes close air support requirements (FM 6-20-40, App A; FM 71-123, Chap 7)

        1) Determine what air is planned (MCM 3-3, Vol VIII)

2) Determine what air is available (MCM 3-3, Vol VIII)

3) Determine target identification procedures (TAC Pam 50-28; FM 6-20

4) Develop contingency plans (TACM 3-1 VI, FM 6-20)

21. **Command Post** (TAC, TOC, CTCP) Operations

22. **Liaison and Coordination with Higher, Adjacent, Supported, and Supporting Elements**

a. Contact established and plans coordinated with adjacent units * (MTP 71-2, Task 7-1-3901, 3902)

b. FSO/FSE coordinate the fire support plan (ARTEP 71-2-MTP, Task 3908/5)

c. Disseminate CAS plan

23. **Command Group/Command Posts Position to Control the Battle**

a. TACP organizes for combat (MCM 3-3, Vol VIII)

24. **TACP Confirms Planned Support and Control Measures***

a. Confirm aircraft allocation (MCM 3-3, Vol VIII; TACM 55-46)

b. Confirm airspace control measures (MCM 3-3, Vol VIII; TACR 55-46)

c. Confirm communications capability (MCM 3-3, Vol VIII; TAC Pam 50-20)

d. Deconflict airspace (TAC Pam 50-28; FM 100-103)

25. **TACP Coordinates with AFAC on Arrival*** (FM 6-20-40, App A)

a. Confirm communications (MCM 3-3, Vol VIII)

b. AFAC receives update (TAC Pam 50-22; TAC Pam 50-20)

c. AFAC updates TACP on air observations

d. Analyze Threat Situation (MCM 3-3, Vol VIII)

e. Confirm JSEAD plan (MCM 3-3, Vol VIII)

f. Confirm CAS target priorities (FM 6-20)

g. Receive Army Aviation update (TAC Pam 50-22)

h. Deconflict airspace TAC Pam 50-28;FM 100-103

i. Confirm airspace control measures (MCM 3-3, Vol VIII; TACR 55-46)

j. Match weapon with target (MCM 3-3, Vol VIII)

26. **Position forces ***

EXECUTION

27. **TF Command Posts Locate Where They Can Control the Battle** (ARTEP 71-2-MTP, Task 7-1-3902)

    a. Position command element/TOC (FM 71-2, Chap 2; ARTEP 71-2-MTP, Task 7-1-3901/11, 3903/1, 3904/1, 3904/14, 3913/11)

    b. Maintain communications (FM 71-2, Chap 2; ARTEP 71-2-MTP, Task 7-1-3401, 3902/1)

28. **TF Commander Sees the Battlefield** (ARTEP 71-2-MTP, Task 7-1-3901/11; FM 71-100, Chap 1)

29. **TF Commander Directs and Leads the Execution Phase** (ARTEP 71-2-MTP, Task 7-1-3901/12; FM 71-100, Chap 1)

    a. Control air defense assets * (FM 71-2, Chap. 6; ARTEP 71-2-MTP, Task 7-1-3911/3, 3911/7)

    b. Execute J-SEAD (ARTEP 71-2-MTP, Task 7-1-3907/5; FM 6-20-40, App A)

    c. Execute CAS (FM 6-20-40, App A; FM 71-123, Chap 7)

    d. Integrate fire support with scheme of maneuver (ARTEP 71-2-MTP, Task 7-1-3027/2, 3027/5, 3907/4, 3908/4, 3908/5, 3908/7; FM 71-2, Chap 6)

30. **TF Command Posts Track and Support the Battle** (ARTEP 71-2-MTP, Task 7-1-3903/3, 3904/14; FM 71-123, Chap 1)

    a. Immediate CAS requested from TACP to ASOC (ARTEP 71-2-MTP, Task 7-1-3907/2; FM 6-20-40, App A; FM 71-123, Chap 7)

31. **TF Conducts Battlefield Update (METT-T based)** (ARTEP 71-2-MTP, Task 7-1-3902/3, 3906/1, 3913/5)

32. **TF Conducts the Decision Making Process (Accelerated)** (FM 71-123, Chap 1)

    a. Disseminate intelligence and combat information * (ARTEP 71-2-MTP, Task 7-1-3906/7, 3905/3; FM 71-2, Chap 2; FM 3-100, Chap 3)

    b. Plan immediate CAS (ARTEP 71-2-MTP, Task 3907/2, 3908/4; FM 6-20-40, Chap 3, App A; FM 71-123, Chap 7)

33. **TF Consolidates and Reorganizes** (ARTEP 71-2-MTP, Task 7-1-3022, 3023)

    a. Consolidate and reorganize (FM 6-20-40, App A, FM 71-123, Chap 7)

    b. Comply with commander's intent (FM 71-2, Chap 2)

34. **TACP Controls CAS Aircraft During Execution***

    a. Establish communications with CAS (TAC Pam 50-28;TAC Pam 50-20)

    b. Confirm Fighter line-up (TAC Pam 50-22)

    c. Deconflict airspace (TAC Pam 50-28)

    d. React to delay of aircraft (TAC Pam 50-28)

    e. Announce arrival of friendly air (MCM 3-3, Vol VIII)

    f. Identify target priorities to pilots (TAC Pam 50-22)

    g. Control CAS during Army Aviation missions (TAC Pam 50-20)

    h. Brief JFIRE (9 Line) to aircraft at IP/CP (MCM 3-3, Vol VIII)

    i. Confirm friendly locations with aircraft (TAC Pam 50-22;MCM 3-3, Vol VIII)

    j. Confirm target locations with aircraft (TAC Pam 50-22; MCM 3-3, Vol VIII)

    k. Initiate JSEAD effort (MCM 3-3, Vol VIII)

    l. Confirm attack approval from ground commander (TAC Pam 50-28)

    m. Issue attack clearance (MCM 3-3, Vol VIII)

    n. Confirm target approach (MCM 3-3, Vol VIII)

o. Direct attack on targets (TAC Pam 50-28)

p. Continuously update aircraft (TAC Pam 50-28;TAC Pam 50-20)

q. Request pilot observations (MCM 3-3, Vol VIII)

r. Disseminate pilot observations (MCM 3-3, Vol VIII)

s. Determine Battle Damage Assessment (TAC Pam 50-22;MCM 3-3, Vol VIII)

t. Execute FAC handoff (TAC Pam 50-28;TAC Pam 50-22;MCM 3-3, Vol VIII)

35. **Maintain Contact with Adjacent Units*** (ARTEP 71-2-MTP, Task 7-1-3903/7)

Note: Task titles are either taken directly from an MTP task or subtask, or, are derived from portions of subtasks, implied tasks, or requirements in the MTPs, applicable FMs, or other related documents. Where there was no specific MTP task to use as the task title, the task title was usually taken from the primary reference FM. Titles not taken directly from the MTP are marked with an asterisk (*).

EMPLOY CLOSE AIR SUPPORT PLANNING TASK LIST

See CCF 18 for a detailed analysis of the planning process and all planning tasks. Key input/output and products of the process critical for CCF 9 are listed at pages 24 through 25. Planning tasks 1 through 13 identified in this list are the CCF 18 tasks. The additional tasks and the subordinate tasks identified are those tasks considered by the analyst to be critical to successfully employ close air support. Tasks are not necessarily listed in chronological order. Some tasks are performed concurrently and/or at different echelons in the task force. The chronological or sequential relationship of the tasks is shown in the charts at pages 12-14. Critical tasks identified for planning CAS should, doctrinally, be performed by the Tactical Air Control Party (TACP). At battalion, the TACP is composed of one ALO and two enlisted specialists (tactical air command and control specialists [TACCSs]). At least one TACCS per battalion TACP is qualified as an ETAC [Enlisted Terminal Attack Controller] and is qualified to control CAS sorties. The tasks are listed either as sub-paragraphs of the task force tasks or as separate tasks, and are titled as "TACP" tasks. In the absence of the ALO/TACP, these planning tasks must be performed by the FSO, FIST, and/or the S3 Air, and this alternative is indicated in brackets [ ] after the task title. References are shown in parenthesis ( ) after the task title. MCM 3-3 is Air Force Multi-Command Manual 3-3 and is the consolidated Air Force manual on tactical employment of aircraft. Titles not taken directly from the MTP are marked with an asterisk (*). (See note page 34.)

1. **Direct and Lead Task Force During Planning for the Battle** (ARTEP 71-2-MTP, Task 7-1-3904-6, 3905-2,4, 3028-3)

   a. See CCF 18.

2. **Receive Order From Higher Headquarters** (FM 101-5; FM 71-123)

   a. See CCF 18.

3. **Conduct Mission Analysis** (ARTEP 71-2-MTP, Task 7-1-3901/2, 3904/3; FM 101-5, Chap 4; FM 71-2, Chap 2; FM 71-123, Chap 1)

   a. TACP identifies projected sorties in area of operations (MCM 3-3, Vol VIII; TACP 50-22).

      1) Type A/C and munitions availability.

      2) Capabilities and limitations.

      3) Projected sortie allocation.

   b. See CCF 18.

4. **Issue the Warning Order** (ARTEP 71-2-MTP, Task 7-1-3901/1, 3902/2, 3904/2; FM 101-5, Chap 4; FM 71-2, Chap 2; FM 71-123, Chap 1)

   a. TACP and coordinating fire support elements are appropriately alerted of the impending mission.

   b. See CCF 18.

5. **Commander Issues Guidance** (FM 101-5, Chap 4)

   a. Commander's guidance addresses priority of fires and, through the FSO, the use of CAS (FM 71-123, Chap 7)

   b. TACP conducts mission analysis (MCM 3-3, Vol VIII)[FSO/S3 Air are alternates]

      1) TACP identifies CAS specific requirements and analyzes the impact of other aspects of the operation on CAS consistent with the commander's intent and the purpose of the mission.

      2) Based on warning order and all available information, TACP determines specified and implied tasks, area of operations (sector/zone), and available time.

   b. See CCF 18.

6. **Prepare Staff Estimates** (ARTEP 71-2-MTP, Task 7-1-3901/3; FM 101-5)

   a. TACP/ALO is part of fire support team (MCM 3-3, Vol VIII; TACP 50-22).

      1) Coordinates with S3 and FSO on concept of fires.

      2) Advises on CAS capabilities.

      3) Identifies tentative CAS targets.

   b. See CCF 18.

7. **Staff Develops Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap 4; FM 71-123, Chap 7)

   a. TACP/ALO is part of fire support team (MCM 3-3, Vol VIII; TACP 50-22).

      1) Advises FSO on CAS capabilities and limitations.

      2) Assists FSO in developing courses of action; provides information on aircraft, munitions, and weapons effects.

      3) Courses of action developed identify CAS assets available to support the operation.

8. **Staff/CDR Analyze Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap 4)

9. **Staff Compares Courses of Action** (FM 101-5, Chap 4; FM 71-123, Chap 7)

   a. TACP/ALO participates in COA comparison as part of fire support team.

      1) Provides detailed information on aircraft and munitions capabilities and limitations.

2) Prepared to discuss utility, advantages, and disadvantages of using air support versus constraints using air imposes on TF fire on maneuver.

b. See CCF 18.

10. **Commander Announces Decision** (FM 101-5, Chap 4; FM 71-123, Chap 7)

a. Commander articulates how he wants to use CAS resources.

b. Issues guidance on prioritization of targets and desired effects.

c. See CCF 18.

11. **Staff Prepares OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/5; FM 101-5, Chap 4)

a. Intelligence: TACP coordinates with the S2 on CAS specific requirements (in the absence of the TACP, the FSO/S3 Air coordinate and plan CAS).

1) TACP coordinates with S2 on terrain analysis (MCM 3-3, Vol VIII; ARTEP 71-2-MTP, Task 7-1-3906/1, 3909/1)

a) Determine ground avenues of approach, choke points, and obstacles.

b) Identify air avenues of approach.

c) Determine the impact of weather on air operations.

d) Identify physical control features.

e) Determine the impact of the sun angle on air operations. (Sun angle is a factor in determining direction and angle of attack to minimize possibility of detection by the target or defending AD systems and to avoid sun glare blinding the pilot.)

f) Determine the elevation of targets in feet.

2) TACP and S2 coordinate analysis of enemy situation (MCM 3-3, Vol VIII)

a) Size, disposition, location, and organization are determined.

b) Potential courses of action are identified.

3) TACP and S2 determine enemy ADA threat (MCM 3-3, Vol VIII; TACP Pam 50-20)

a) Type, location, and capabilities are determined.

b) Expected actions to move or remain stationary are identified.

4) See CCF 1.

b. Plan scheme of maneuver (ARTEP 71-2-MTP, Task 7-1-3901/7, 3902/8; FM 71-123, Chap 3, 4, 5, 6; MCM 3-3, Vol VIII, Chap 1)

[Note: TACP coordinates with S3 and FSO on CAS-specific requirements in order to acquire detailed knowledge of TF fire and maneuver plans in order to successfully integrate air and ground operations.]

1) Defense - TACP requires information on the following:

a) Primary, alternate and subsequent positions.

b) Coordinated movement plans and routes for the covering force/main battle handover, counterrecon/screen handover, movement to supplementary positions, positioning counterattack force, planned counterattacks, movement of reserve force, withdrawal of units, rearward passage and movement to assembly areas, obstacles, and engagement areas.

2) Offense - TACP requires information on the following:

a) Main and supporting attacks.

b) Coordinated movement plans and routes for movement and positioning of maneuver forces from line of departure through actions on final objective, and locations of natural and enemy reinforcing obstacles.

c) Zones of action, axes of advance, routes, or directions of attack.

d) Main and intermediate objectives.

3) Identify maneuver control measures.

a) TACP understands control measures developed to delineate the task force scheme of maneuver.

b) Maneuver restrictions, air and ground, are identified and designated.

c) Control measures (such as infiltration routes, direction of attack, company release points, assault position, probable line of deployment, limit of advance, intermediate and final objectives, line of departure) should coincide with specific, easily identifiable, terrain features whenever possible, both for control of ground maneuver and to facilitate use by TACP/AFAC to control aircraft.

d) Designate methods for marking friendly troop locations (Glint tape, VS-17 panels, smoke, etc.).

c. TACP prepares close air support input to fire support plans [FSO/S3 Air are alternates].

[Note: TACP identifies air control measures and coordinates with other airspace users in the TF area to determine planning parameters and restrictions on aircraft approaches, flight paths, munitions, etc.]

1) Identify air control measures (MCM 3-3, Vol VIII; ATP 40; FM 100-103)

a) Confirm coordinating altitude (from above ground level [AGL]).

b) Determine restrictions and constraints.

c) Identify the following areas:

(1) Airspace Coordination Areas (ACA).

(2) Air ingress/egress routes.

(3) Helicopter air corridors.

(4) Engagement Areas.

(5) Restricted Operations Zones (ROZ).

2) Coordinate Air Defense Artillery control procedures (TAC Pam 50-20).

[Note: TACP is aware of ADA weapons control status, fire control orders, states of alert, and air defense warnings; the criteria for changing them; how changes in each are transmitted; and insures he is notified of any changes which may impact on airspace control and aircraft maneuver in the TF area.]

a) Identify Air Defense Artillery (ADA) alert (early warning) procedures.

b) Identify ADA change of status procedures.

c) Identify air ingress/egress routes.

d) Identify notification procedures for friendly air on station.

3) Coordinate with Army Aviation (TAC Pam 50-20;FM 1-111; FM 6-20-40, App A)

[Note: TACP identifies requirements for use of Army aircraft in the TF area (both by TF and for possible recovery of downed air crews), responsibilities for control and coordination, and the impact on CAS operations.]

a) Identify constraints/limitations in both altitude and routes.

b) Identify engagement areas.

c) Identify critical ground locations, such as:

(1) Landing zones.

(2) Forward Arming and Refueling Points (FARP).

(3) Battle Positions.

(4) Aerial observation positions (AOPs).

d) Identify Joint Air Attack Team (JAAT) specific considerations.

4) Review air capabilities and priorities (TAC Pam 50-20; FM 6-20)

a) Brief ground commander on air limitations.

b) Brief ground commander on air capabilities.

c) Reaffirm commander's intent.

d) Nominate appropriate targets.

e) Target priorities conform to the following criteria:

(1) Aircraft survival.

(2) Support ground maneuver plan.

f) Target priorities conform with the ground fire support plan.

d. Develop fire support plan (FM 71-2, Chap 6; FM 71-123, Chap 7; ARTEP 71-2-MTP, Task 7-1-3907/1, 3907/2, 3908/4, 3911/1; MCM 3-3, Vol VIII, Chap 16)

1) Indirect fire plan addresses priority of fires, targets of concern and priority targets. CAS target priorities are developed.

2) Plan identifies, as tentative CAS targets, those targets that cannot be effectively engaged by organic or supporting weapons or where organic/ supporting weapons cannot achieve the desired effect.

3) Fire support execution matrix, including CAS, is prepared and synchronized with the maneuver execution matrix.

4) Priorities for CAS are established.

5) SEAD requirements in support of CAS and attack helicopter operations are identified.

6) Determine availability, capabilities, and codes for target designating lazers.

7) FSO and ALO develop an integrated fire support plan, of indirect fires and CAS, that supports commander's concept/intent and is synchronized with the scheme of maneuver.

8) Commander approves fire support plan, and CAS utilization, prior to dissemination.

e. Develop air defense plan (ARTEP 71-2-MTP, Task 7-1-3902, 3904, 3911)

1) ADA weapons positioning is determined based on IPB and assets to be defended.

2) TACP is aware of ADA systems locations and directions of fire.

3) Rules of engagement, hostile criteria, and weapons control status are received and disseminated.

4) ALO and ADO develop an integrated fire support plan that supports commander's concept/intent and is synchronized with the scheme of maneuver.

f. Plan preplanned CAS (ARTEP 71-2-MTP, Task 7-1-3907/2, 3908/4; FM 6-20-40, Chap 3, App. A; FM 71-123, Chap 7)

1) FSO, S3, ALO, S2, and S3 Air identify and recommend targets for engagement with preplanned CAS.

2) Subordinate's requests for CAS are prioritized.

3) Detailed timing information is provided when the time lag between the request and the required CAS is short.

4) Planning considerations are:

a) Unit mission.

b) Projected situation.

c) Enemy air defense capabilities and TF SEAD capabilities.

d) Terrain restrictions on use of particular aircraft or munitions.

e) Weather forecast favoring use of aircraft.

f) Time available for planning.

g) Type targets to be engaged and desired weapon effects (estimate by percentage).

h) Target acquisition and identification.

i) Identification of friendly forces and troop safety.

j) Final attack heading considering troop safety, aircraft survivability, and optimum weapons effects.

k) Command, control, communications.

l) Mission response time.

m) Close air support and artillery integration.

n) Impact of air delivered munitions on TF maneuver. (e.g. CBU with high dud rate not desirable in area through which TF will move.)

5) Request is submitted through fire support channels to brigade.

6) FSO plans for engagement of CAS targets by alternate fire support means in anticipation of diversion.

g. TACP initiates Close Air Support (CAS) request (FM 90-21; FM 6-20-40, App A; FM 71-123, Chap 7)

1) Supports ground scheme of maneuver.

2) Supports fire support plan.

3) Conforms to intelligence estimate.

12. **Issue the OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/7, 3902/8, 3904/11; FM 101-5, Chap 4; FM 71-2, App B; FM 71-123, Chap 1)

a. TACP available to brief CAS portion of order.

b. TACP available to coordinate and assist during backbriefs.

c. See CCF 18.

13. **Refine the Plan** (ARTEP 71-2-MTP, Task 7-1-3901/8; FM 101-5, Chap 4)

a. TACP refines close air support (FSO/S3 Air are alternates).

1) Review and integrate combat information and intelligence from all sources, such as: (TACM 3-1 VI)

a) JSTAR.

b) Reconnaissance.

c) Ground assets.

d) Other available assets.

2) Analyze ground scheme of maneuver; identify: (MCM 3-3, Vol VIII; TAC Pam 50-22)

a) FLOT (Battle positions and location of elements forward of the FLOT).

b) Engagement areas.

c) Maneuver restrictions such as boundaries, axis of advance, and limitations.

d) Control measures.

e) Methods for marking friendly troop locations.

3) Determine ground commander's priority targets (MCM 3-3, Vol VIII)

a) Identify target type.

b) Integrate target with threat to friendly forces and determine the risk to air assets and the risk of fratricide.

4) Analyze fire support plan; identify: (MCM 3-3, Vol VIII; FM 6-20)

a) Location of indirect fire assets, such as artillery guns, Multiple Launched Rocket Systems, and mortars.

b) Gun-target lines.

c) Movement sequence, to include timing and new locations.

d) Planned targets.

e) Sequence of engagement.

f) Maximum ballistic altitudes.

g) ACAs.

h) JAAT considerations.

i) Laser target designator assets.

5) Analyze targets (TAC PAM 50-20; FM 6-20)

a) Identify locations.

b) Determine target type.

c) Determine the best method to defeat enemy targets.

d) Identify appropriate JSEAD requirements.

e) Identify necessary suppression measures.

f) Determine the impact of weather on air operations.

g) Confirm engagement criteria.

6) Determine risk to Airborne Forward Air Controller (AFAC) (MCM 3-3, Vol VIII) [FSO/S3 Air coordinate with Brigade TACP if no TF TACP available.]

a) Determine risk to AFAC during target observation, target marking, and while in the holding pattern.

b) Identify AFAC position in relation to the enemy threat (distance, capabilities, ADA systems).

c) Identify AFAC position in relation to friendly forces (ADA systems, gun target lines, air routes).

d) Confirm appropriateness of altitude and holding pattern area.

7) Plan JSEAD (Joint Suppression of Enemy Air Defenses) (TAC Pam 50-20; MCM 3-3, Vol VIII, Chap 16)

[Note: Planning for localized JSEAD is integral to specific air mission planning and is initiated by CAS mission requester. The Army has primary execution responsibility for SEAD from the FLOT to the limits of observed fire.]

a) Determine ADA targets.

b) Determine ADA target locations.

c) Determine type of suppression (destructive or disruptive).

d) Determine type of JSEAD available.

e) Integrate JSEAD with adjacent units.

8) Recommend appropriate target sequence (MCM 3-3, Vol VIII; FM 6-20)

9) Identify Initial Point (IP) (MCM 3-3, Vol VIII) [FSO/S3 Air coordinate with Brigade TACP if no TF TACP available. The IP is a well-defined point, easily distinguishable visually and/or electronically, used as a starting point for the run to the target.]

a) Identify location that is an appropriate distance from threat and easy to identify.

b) Determine holding altitude.

c) Confirm deconfliction of IP from gun target lines.

d) Confirm communication capabilities.

b. Integrate CAS with fire support plan (ARTEP 71-2-MTP, Task 3907/3, 3908/4, 3908/5; FM 6-20-40, App. A)

1) TACP knowledgeable of fires planned to support TF operations.

2) Fire support execution matrix includes CAS and is synchronized with the maneuver execution matrix.

3) Restrictive fire support coordinating measures (such as RFL, FSCL, ACA, no-fire areas, etc) are developed to preclude engagement of friendly forces.

4) Airspace Coordination Areas from brigade are plotted and complied with.

5) Air defense plans are coordinated with A2C2 element and brigade, IFF codes are verified.

6) ADA contingency plans are developed for shifts in priorities, changes in weapons control status, change in A2C2 plan or friendly air, and loss of AD weapons.

7) CAS is planned against appropriate targets.

8) Plans for smoke/obscuration are specifically deconflicted with TACP to avoid interference with CAS.

c. FSO plans alternate means of engaging targets if CAS is not available and change fire support plan as appropriate.

d. TACP communicates with Brigade TACP for updates on air requests and air availability.

e. TACP revises/updates CAS planning as TF plan changes.

1) CAS requests received from subordinate elements are prioritized and processed.

f. See CCF 6.

14. **TACP Conducts METT-T Analysis and Staff Coordination*** (FM 6-20-40, App A; FM 71-123, Chap 7)

a. Coordinate with S2 (MCM 3-3, Vol VIII)

1) Identify all available information and intelligence on the following:

a) Enemy forces (emphasis on ADA threat).

b) Terrain.

c) Weather.

2) Ensure continuous flow of new intelligence to the Air Liaison Officer.

3) Ensure continuous flow of combat information from aircraft to the S2.

4) Determine what air intelligence assets are available.

b. Analyze friendly situation; identify: (MCM 3-3, Vol VIII)

1) FLOT (Forward Line of Troops).

2) Location of forward elements.

3) Location of indirect fire assets.

4) Helicopter areas of operation (AO) (routes, lift, and attack).

5) UAV (Unmanned Air Vehicle) AO.

6) Location of the FSCL (Fire Support Coordination Line).

7) Methods for marking friendly troop locations.

c. Determine communication requirements (MCM 3-3, Vol VIII; TAC Pam 50-20)

1) Identify locations which provide continuous communications with ground and air forces.

2) Determine communications requirements with ground forces, air forces, and army aviation; to include "jump" plans for alternate signals in the event of interference/jamming.

3) Identify ground retransmission requirements

4) Develop air communication plan to defeat jamming/interference utilizing, as appropriate:

   a) HAVE-Quick (UHF radio modification providing frequency hopping capability to deny jamming.)

      (1) TOD (Time of Day synchronization process to match HAVE-Quick frequency jumping.)

      (2) Mickey (Code word alerting receiver to receive a tone/signal to synchronize electronic equipment/radios.)

   b) Chattermark (Code word to switch to a pre-determined alternate frequency.)

EMPLOY CLOSE AIR SUPPORT PREPARATION TASK LIST

See CCF 19 for a detailed analysis of the command and control of the preparation process and all preparation tasks. Key input/output and products of the process critical for CCF 9 are listed at pages 24 through 25. Preparation tasks 15 through 23 identified in this list are the CCF 19 tasks. The additional tasks and the subordinate tasks identified are those tasks considered by the analyst to be critical to successful preparation for employment of close air support. Tasks are not necessarily listed in chronological order. Some tasks are performed concurrently and/or at different echelons in the task force. The chronological or sequential relationship of the tasks is shown in the charts at pages 12–14. Critical tasks identified for preparation of CAS should, doctrinally, be performed by the Tactical Air Control Party (TACP). These tasks are listed either as sub-paragraphs of the task force tasks or as separate tasks, and are titled as "TACP" tasks. In the absence of the ALO/TACP, these preparation tasks must be performed by the FSO and/or the S3 Air, and this alternative is indicated in brackets [ ] after the task title. References are shown in parenthesis ( ) after the task title. MCM 3-3 is Air Force Multi-Command Manual 3-3 and is the consolidated Air Force manual on tactical employment of aircraft. Titles not taken directly from the MTP are marked with an asterisk (*). (See note on page 34.)

15. Command Group Conducts and Receives Briefings

a. See CCF 19.

16. Command Group/Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities

a. See CCF 19.

17. Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation

a TACP designates subordinate responsibilities (MCM 3-3, Vol VIII)

1) Confirm required actions and responsibilities for battalion TACP personnel.

2) Ensure any special instructions are disseminated to all subordinate elements.

3) Confirm that all subordinates are capable of fulfilling their assigned responsibilities.

b. TACP confirms and updates planned support. (See task 24).

c. See CCF 19.

18. Commander, Commander's Representatives, and Staff Conduct Inspections and Visits

a. See CCF 19.

19. **Task Force Conducts Rehearsals** (ARTEP 71-2-MTP, Task 7-1-3901/7, 3024/7; FM 71-2, Chap 2; FM 71-123, Chap 2; FM 90-13-1, App D)

    a. Rehearse reactions to enemy air (ARTEP 71-2-MTP, Task 7-1-3901, 3024/7; FM 71-2, Chap. 2; FM 71-123, Chap. 2)

        1) Weapons control status, rules of engagement, and hostile criteria are verified.

        2) Identification, engagement, and fire control measures are rehearsed.

        3) Use of early warning net and command net to alert AD elements is verified.

    b. Rehearse fire support plan (ARTEP 71-2-MTP, Task 7-1-3901, 3024/7; FM 71-2, Chap. 2; FM 71-123, Chap. 2)

        1) Fire support plan is verified with all fire support assets (FA, ADA, CAS, etc.).

        2) Communications are established with indirect fire support assets, frequencies are verified and tested.

        3) Subordinate combat elements demonstrate an understanding of the signals for lifting and shifting of fires.

        4) Fire support plan rehearsal, including CAS, is integrated into and synchronized with the TF maneuver rehearsal.

    c. TACP confirms CAS integration and synchronization during rehearsals [FSO/S3 Air are alternates.] (FM 6-20-40, App A; FM 71-123, Chap 7)

        1) Confirm CAS integration with TF Synch Matrix (FM 6-20)

            a) CAS plan conforms with Decision Support Template.

            b) CAS is synchronized with scheme of maneuver.

                (1) Timing.

                (2) Command or event driven sequence.

            c) CAS is synchronized with fire support plan.

                (1) Timing.

                (2) Command or event driven sequence.

                (3) Targets.

            d) CAS is synchronized with Army Aviation.

                (1) Timing.

                (2) Battle positions.

                (3) Engagement areas.

e) Plan for CAS throughout TF mission.

f) JSEAD is synchronized with CAS.

(1) Enemy ADA targets identified along routes and at CAS targets.

(2) Specific fire support systems are identified for ADA targets.

2) Confirm plan with Fire Support Element (FM 6-20-40, App A)

a) Confirm that CAS plan is synchronized with indirect fire plan.

(1) Sequence of attack.

(2) Timing.

(3) Engagement areas.

(4) Targets.

b) Ensure that masking of indirect fires is minimized.

c) Review CAS target list for appropriateness.

d) Identify coordination considerations with Army Aviation.

e) Confirm location and capabilities of lasing assets.

3) Confirm location with Command Group for TACP.

d. See CCF 19.

20. Task Force Plan Modified and Refined

a. Verify IPB product (FM 71-2, Chap 2; FM 34-3, Chap 4; FM 6-20-40, App A)

1) Enemy capabilities and dispositions are verified (location and disposition of ADA positions, reserves, etc.).

2) See CCF 2; CCF 3.

b. TACP finalizes close air support requirements [FSO/S3 Air are alternates, coordination with Brigade TACP for aircraft information] (FM 6-20-40, App. A; FM 71-123, Chap 7)

1) Determine what air is planned (MCM 3-3, Vol VIII)

a) Type of aircraft.

b) When the aircraft will arrive.

c) How long aircraft will remain on station.

d) Aircraft capabilities (munitions and Electronic Warfare [EW]).

e) Projected sortie allocation.

2) Determine what air is available (MCM 3-3, Vol VIII)

a) Type of aircraft.

b) When the aircraft will be available.

c) How long aircraft will be available.

d) Aircraft capabilities (munitions and EW).

e) Air priority of effort in the AO.

f) Projected suppression coverage (JSEAD and Weasel).

3) Determine target identification procedures (TAC Pam 50-28; FM 6-20)

a) Determine target marking procedures.

b) Determine the utility of using various target marking methods, such as laser, smoke, tracers, ground-burst illumination, or target description, etc.

c) Identify easy to locate terrain features.

d) Insures understanding of difference between target marking and marking methods for identification of friendly troop locations.

4) Develop contingency plans (TACM 3-1 VI, FM 6-20)

a) Identify secondary targets.

b) Identify alternate engagement areas.

c) Prepare for second echelon engagement.

c. FSO plans alternate means of engaging targets if CAS is not available.

d. See CCF 7; CCF 8; CCF 15.

21. Command Post (TAC, TOC, CTCP) Operations

a. See CCF 19.

22. Liaison and Coordination with Higher, Adjacent, Supported, and Supporting Elements

a. Contact established and plans coordinated with adjacent units * (ARTEP 71-2-MTP, Task 7-1-3901, 3902)

1) Supporting fires plans, to include CAS, are coordinated and exchanged.

2) Control measures delineating mutual boundaries, air space control measures and deconfliction of air space are coordinated.

3) See CCF 19.

b. FSO/FSE coordinate fire support plan (ARTEP 71-2-MTP, Task 7-1-3908/5)

1) Confirm ACA locations for planned CAS with brigade.

2) FSO provides ACAs that allow maximum engagement of the enemy and survivability of CAS.

3) Coordinate SEAD missions and synchronize with CAS missions.

c. Disseminate CAS plan.

d. TACP confirms and updates planned support. (See Task 24.)

e. See CCF 19.

23. **Command Group/Command Posts Position to Control the Battle**

a. TACP organizes for combat (MCM 3-3, Vol VIII)

1) Establish chain of command.

2) Identify locations for TACP elements that provide for observation of target area (AFAC, GFAC, or Flight lead control).

3) Identify locations for TACP elements that provide uninterrupted communication with air and ground forces.

4) Determine position of Air Liaison Officer within the command group.

5) Identify CAS final control authority.

b. See CCF 19.

24. **TACP Confirms Planned Support and Control Measures*** [FSO/S3 Air alternates for the TACP, coordinate with Brigade TACP for aircraft allocation, airspace deconfliction and communications.] (FM 6-20-40, App A; FM 71-123, Chap 7)

a. Confirm aircraft allocation (MCM 3-3, Vol VIII; TACM 55-46)

1) Type of aircraft.

2) When the aircraft will arrive.

3) Munitions.

4) Number of sorties.

b. Confirm airspace control measures (MCM 3-3, Vol VIII; TACR 55-46)

1) Identify any changes to initial plan.

2) Identify local airspace restrictions for areas, altitude, and time.

c. Confirm communications capability with: (MCM 3-3, Vol VIII; TAC Pam 50-20)

1) TACP (HAVE-Quick, Authentication).

2) Air forces (Air Force, Navy, Marine aircraft).

3) Army aviation (Authentication).

4) Field artillery, mortars, FIST, and TF ground forces.

d. Deconflict airspace (TAC Pam 50-28; FM 100-103)

1) Plan minimizes potential fratricide situations. (Airspace control measures established and briefed.)

2) Plan minimizes the masking of fires for all elements. (ADA, FA, Army AVN, CAS missions synchronized.)

3) Plan reaction to aircraft ingressing and egressing the AO (ground unit locations and weapons systems considered when ingress/egress routes planned).

4) Insure that no conflict between CAS and other airspace users exists.

a) Helicopters (attack, lift, and scout).

b) Indirect fires (artillery, mortars, and naval).

c) ADA.

d) UAV.

25. **TACP Coordinates with AFAC on Arrival*** [FSO/S3 Air, FIST, and Brigade TACP coordinate AFAC brief in absence of TF TACP] (FM 6-20-40, App A)

a. Confirm communications (MCM 3-3, Vol VIII)

1) TACP.

2) Air forces.

3) Army Aviation.

4) TF ground forces.

b. AFAC receives update (TAC Pam 50-22; TAC Pam 50-20)

1) Current target information.

a) Identify location.

b) Determine target type.

c) Confirm engagement criteria.

d) Identify final control authority for each target.

e) Determine target elevation (in feet).

2) Target marking procedures (TAC Pam 50-28).

a) Verify marking procedures

b) Confirm the utility of using laser, smoke, tracers, description, etc. as target marking methods.

c) Verify terrain features for ease of identification

3) Latest tactical intelligence.

a) Enemy forces (location, disposition, ADA, etc.).

b) Weather.

4) Ground tactical situation.

a) Identify FLOT.

b) Identify engagement areas.

c) Identify maneuver restrictions.

d) Identify location of elements forward of the FLOT.

e) Identify methods for marking friendly troop locations.

5) Location of TACP.

6) Confirm friendly ADA status (MCM 3-3, Vol VIII;FM 100-103)

a) Verify current ADA status.

b) Verify procedures to change ADA status.

7) Update on current enemy ADA threat.

8) Confirm aircraft allocation (MCM 3-3, Vol VIII;TACM 55-46)

a) Type of aircraft.

b) When the aircraft will arrive.

c) Munitions.

d) Number of sorties.

c. AFAC updates TACP on air observations

d. Analyze Threat Situation (MCM 3-3, Vol VIII)

   1) Determine the best method to defeat targets.

   2) Determine the impact of weather on air operations.

   3) Determine methods to suppress enemy ADA.

e. Confirm JSEAD plan (MCM 3-3, Vol VIII)

   1) Verify JSEAD requirements.

   2) Verify planned suppression measures.

f. Confirm CAS target priorities (FM 6-20)

   1) Support ground maneuver plan.

   2) Aircraft survival.

   3) Conform with the ground fire support plan.

g. Receive Army Aviation update (TAC Pam 50-22)

   1) Identify responsibilities.

   2) Identify constraints/limitations (altitude, routes).

   3) Confirm capabilities.

   4) Confirm engagement areas.

   5) Identify critical locations (landing zones, FARPs).

   6) Determine method of authentication between helicopters and CAS.

h. Deconflict airspace (TAC Pam 50-28; FM 100-103)

   1) Plan minimizes potential fratricide situations (Airspace control measures established and briefed).

   2) Plan minimizes the masking of fires for all elements (ADA, FA, Army AVN, CAS missions synchronized).

   3) Coordinate ingress and egress routes through the AO (ground unit locations and weapons systems considered when ingress/egress routes planned).

   4) Confirm that CAS, helicopters (attack, lift, and scout), indirect fires (artillery, mortars, and naval), ADA, and UAV assets are operating in concert.

i. Confirm airspace control measures (MCM 3-3, Vol VIII; TACR 55-46)

   1) Identify any changes to initial plan.

2) Identify local airspace restrictions for areas, altitude, and time.

j. Match weapon with target (MCM 3-3, Vol VIII)

1) Ensure that planned targets are matched with the most appropriate weapon system.

2) Confirm that munitions support scheme of maneuver.

3) Sequence attack to conform to established target priorities.

4) Sequence attack to conform to fire support plan.

26. Position Forces*

a. Artillery locations are identified and gun target lines verified.

b. TACP occupies sites and confirms observation and communications.

c. Laser assets are positioned.

d. FSO/FIST positioned to observe and control fire support.

e. TACP confirms no-fire boxes for friendly units forward.

f. See CCF 7; CCF 8; CCF 15; CCF 16/17.

EMPLOY CLOSE AIR SUPPORT EXECUTION TASK LIST

See CCF 20 for a detailed analysis of the command and control of the execution phase and all execution tasks. Key input/output and products of the process critical for CCF 9 are listed at pages 24 through 25. Execution tasks 27 through 33 identified in this list are the CCF 20 tasks. The additional tasks and the subordinate tasks identified are those tasks considered by the analyst to be critical to successful execution of actions to employ close air support. Tasks are not necessarily listed in chronological order. Some tasks are performed concurrently and/or at different echelons in the task force. The chronological or sequential relationship of the tasks is shown in the charts at pages 12–14. Critical tasks identified for execution of CAS should, doctrinally, be performed by the Tactical Air Control Party (TACP). These tasks are listed either as sub-paragraphs of the task force tasks or as separate tasks, and are titled as "TACP" tasks. In the absence of the ALO/TACP, these preparation tasks must be performed by the FSO and/or the S3 Air, and this alternative is indicated in brackets [ ] after the task title. References are shown in parenthesis ( ) after the task title. MCM 3-3 is Air Force Multi-Command Manual 3-3 and is the consolidated Air Force manual on tactical employment of aircraft. Titles not taken directly from the MTP are marked with an asterisk (*). (See note on page 34.)

27. **TF Command Posts Locate Where They Can Control the Battle** (ARTEP 71-2-MTP, Task 7-1-3902)

    a. Position command element/TOC (ARTEP 71-2-MTP, Task 7-1-3901/11, 3903/1, 3903/4, 3904/1, 3904/14, 3913/11; FM 71-2, Chap 2)

        1) TACP locates with command group where it can observe and control CAS

        2) See CCF 20.

    b. Maintain communications (ARTEP 71-2-MTP, Task 7-1-3401, 3902/1; FM 71-2, Chap 2)

        1) TACP establishes communications with CAS/FAC, FSO, FIST, and TF command.

        2) See CCF 20.

28. **TF Commander Sees the Battlefield** (ARTEP 71-2-MTP, Task 7-1-3901/11; FM 71-100, Chap 1)

    a. See CCF 20.

29. **TF Commander Directs and Leads the Execution Phase** (ARTEP 71-2-MTP, Task 7-1-3901/12; FM 71-100, Chap 1)

    a. Control air defense assets * (ARTEP 71-2-MTP, Task 7-1-3911/3, 3911/7; FM 71-2, Chap. 6)

        1) Air defense forces react to the changing tactical situation and activate changes in weapons control status in response to CAS requests.

2) Air defense elements monitor the air warning net and TACP is kept informed of changes in status.

3) Other air defense assets (maneuver units) are kept informed of status of friendly air in area and respond accordingly.

4) See CCF 16; CCF 20.

b. Execute J-SEAD (ARTEP 71-2-MTP, Task 7-1-3907/5; FM 6-20-40, App A)

1) FIST is in position to direct SEAD fires.

2) TF fires and smoke suppress observed enemy air defense weapons within range and which can be engaged without interfering with the CAS mission.

c. Execute CAS (FM 6-20-40, App A; FM 71-123, Chap 7)

1) TACP notifies TF of arrival of CAS aircraft in area.

2) Close air support sorties are executed under TACP control.

3) FIST is in position to provide orientation on target, friendly positions and enemy ADA through the TACP. FIST may need to act as "eyes" of TACP in the target area if no AFAC available.

4) FIST is prepared to mark target for AFAC or CAS aircraft and to identify new targets as they appear.

5) Friendly troop locations are marked and markings are confirmed.

6) When AFAC is on station and can observe the target:

a) AFAC locates target, friendly forces, and enemy air defenses.

b) AFAC passes the mission brief to aircraft (9 Line).

c) AFAC requests SEAD, target marking, and abort code.

d) AFAC considers troop safety, warns flight leader of enemy AD fires, orients flight leader to target, calls corrections, and provides BDA.

e) FIST helps the AFAC locate the target, friendly forces, and enemy air defenses; initiate and control on-call SEAD; mark target with smoke or lasers; and integrate fire support with CAS.

7) When there is no AFAC or, AFAC cannot see the target:

a) FIST passes information on target location and description, location of friendly forces, FIST frequencies and call signs, and laser codes to TACP for AFAC or flight leader.

b) TACP requests SEAD, target marking, and abort code.

c) TACP is prepared to relay orientation to target, abort calls, AD warnings, corrections, and troop safety instructions to the flight leader.

d) FIST passes target information and is prepared to:

(1) Initiate and control SEAD.

(2) Mark target with smoke or laser.

(3) Pick up fighters visually, if possible.

(4) Orient fighters to the target.

(5) Call corrections.

(6) Call ABORT (danger to friendly ground or air forces or wrong target), if required.

(7) Reports BDA.

e) TACP relays BDA from the FIST.

8) If no AFAC or TF TACP is available, in a combat emergency:

a) FIST will direct tactical fighters that are equipped with compatible radios.

b) Brigade TACP will prepare the CAS mission briefing.

d. Integrate fire support with scheme of maneuver and CAS (ARTEP 71-2-MTP, Task 7-1-3027/2, 3027/5, 3907/4, 3908/4, 3908/5, 3908/7; FM 71-2, Chap 6)

1) Task force supporting fires are coordinated and synchronized with CAS missions to minimize possibility of fratricide and maximize time when enemy is being engaged.

2) TF/FSO notifies adjacent units of arrival of CAS aircraft.

3) TF notifies subordinate elements (Co/Tms) of impending close air support missions.

4) See CCF 15; CCF 20.

30. **TF Command Posts Track and Support the Battle** (ARTEP 71-2-MTP, Task 7-1-3903/3, 3904/14; FM 71-123, Chap 1)

a. Immediate CAS requested from TACP to ASOC (FM 6-20-40, App. A; FM 71-123, Chap 7)

b. Request identifies unit requesting; priority; target type, size, and location; time required; and desired results.

c. See CCF 20.

31. **TF Conducts Battlefield Update (METT-T based)** (ARTEP 71-2-MTP, Task 7-1-3902/3, 3906/1, 3913/5)

a. Conduct battlefield update (ARTEP 71-2-MTP, Task 7-1-3906/7)

1) TACP is provided with current intelligence update on target locations and activities, enemy ADA locations, and enemy air activities.

2) TACP is provided with current information update on friendly locations and activities, ADA activities, and other air operations in the AO.

3) Friendly troop location markings are confirmed.

4) See CCF 4; CCF 20.

32. **TF Conducts the Decision Making Process (Accelerated)** (FM 71-123, Chap 1)

a. Disseminate intelligence and combat information * (ARTEP 71-2-MTP, Task 7-1-3906/7, 3905/3; FM 71-2, Chap 2; FM 6-20-40, App A)

1) TACP is aware of current enemy situation and threat to aircraft.

2) TACP is aware of changes in the friendly situation, particularly any locations that restrict CAS employment.

3) See CCF 4; CCF 19.

b. Plan immediate CAS (ARTEP 71-2-MTP, Task 3907/2, 3908/4; FM 6-20-40, Chap 3, App. A; FM 71-123, Chap 7)

1) Commander, S3, FSO and ALO consider requests for CAS identified too late to be preplanned.

2) Immediate CAS request considerations are:

a) Target type: CAS is most effective against exposed and/or moving targets.

b) TF capability to suppress: Enemy air defense systems that may require suppression before CAS can be effective.

c) Accessibility of target to air attack; availability of approach/egress routes.

d) Target acquisition: marking of camouflaged or small, stationary, targets that are difficult for pilots to acquire may be necessary.

e) Ordnance capabilities to achieve the desired results.

f) Day or night observation of target; night missions require special marking for target identification and use of mortars or artillery for illumination of the target.

g) Time available: Urgency of the requirement and response and station time for CAS aircraft in the area.

h) Weather.

i) Troop safety limitations.

3) TF approved requests are submitted by the TACP over Air Force air request net directly to the Air Support Operations Center (ASOC) at the Corps TOC. In the absence of TF TACP, TF approved requests are transmitted to brigade TACP to be put into the air request net.

[Note: Silence by intermediate TACPs indicates approval by the associated headquarters. ASOC coordinates with G3 Air and all echelons coordinate simultaneously to approve or disapprove request.]

4) Request may be satisfied at each echelon by allocating available sorties at that echelon or requesting additional sorties from higher echelon. Most common source of CAS for TF immediate requests is diversion of sorties from lower priority targets in other areas. Munitions on board for other targets must be matched as closely as possible to achieve desired effects on target.

5) If approved, TACP and AFAC will receive aircraft mission data from the ASOC such as mission number, aircraft call sign, number and type aircraft, ordinance carried, and time on target.

6) See Tasks 24 and 25 for final preparation prior to aircraft arrival.

c. See CCF 7; CCF 8; CCF 15; CCF 16; CCF 18.

33. **TF Consolidates and Reorganizes** (ARTEP 71-2-MTP, Task 7-1-3022, 3023)

a. Consolidate and reorganize (ARTEP 71-2-MTP, Task 7-1-3022, 3023; FM 71-2, Chap 3)

1) TACP repositions as necessary to control CAS.

2) See CCF 6; CCF 20; CCF 28; CCF 29; CCF 31; CCF 33; CCF 34; CCF 38.

b. Comply with commander's intent (FM 71-2, Chap 2)

1) The desired task outcomes are attained, Commander's intent for fire support (CAS) is accomplished.

c. See CCF 20.

34. **TACP Controls CAS Aircraft During Execution*** (FM 6-20-40, App A; FM 71-123, Chap 7)

[Note: FIST may be "eyes" on target in absence of AFAC and will provide target information to CAS through the TACP. In the absence of the TACP, FSA/S3 Air may act as relay for FIST to TACP at brigade or to aircraft, depending on communications capability. Task 29c. discusses specific FIST tasks under different situations.]

a. Establish communications with CAS (TAC Pam 50-28;TAC Pam 50-20)

1) Confirm communications with incoming CAS.

a) Establish communications with fighters.

b) Authentication.

c) Coordinate initiation of Chattermark plan (Plan to switch to predetermined alternate frequency if jamming occurs, plan activated by transmission of code word "Chattermark").

2) Continuous communications are maintained for the following:

a) CAS and FAC.

b) FAC and TACP.

c) TACP and command group.

d) FAC/TACP and FSO/FIST.

3) Army Aviation maintains communication with the following:

a) Command group.

b) TACP.

c) FAC (if JAAT).

b. Confirm Fighter line-up (TAC Pam 50-22)

1) Call sign.

2) Mission number.

3) Ordnance and fusing.

4) On station time (playtime).

5) Abort code.

c. Deconflict airspace (TAC Pam 50-28)

1) Shift or lift indirect fires.

2) Shift other air assets, such as helicopters and UAVs.

3) Update ADA status.

4) Establish CAS holding points.

5) Prepare to stack fighters.

d. React to delay of aircraft (TAC Pam 50-28)

1) Confirm new time.

2) Determine changes in ground situation.

3) Confirm targets.

4) Develop new targets.

5) Activate contingency plans.

e. Announce arrival of friendly air (MCM 3-3, Vol VIII)

1) AFAC Notify TACP.

2) TACP notify command group/FSO.

3) Includes arrival of air for adjacent units.

f. Identify target priorities to pilots (TAC Pam 50-22)

1) Ensures that pilots understand target priorities.

2) Ensures that pilots understand CAS attack sequence.

g. Control CAS during Army Aviation missions (TAC Pam 50-20)

1) confirm call signs for all aircraft.

2) Confirm JFIRE/JAAT targets.

3) Confirm target locations for CAS, Army Aviation, and indirect fires.

4) Confirm target marking procedures.

h. Brief JFIRE (9 Line) to aircraft at IP/CP (MCM 3-3, Vol VIII)

1) Briefing follows prescribed format and covers:

a) Initial point (IP).

b) Heading from IP to target in magnetic degrees with offset to left or right.

c) Distance from IP to target in nautical miles.

d) Target elevation in mean feet above sea level.

e) Target description.

f) Target location (latitude/longitude, UTM, offsets, or visual).

g) Type marking and code, if laser or beacon.

h) Location of friendlies.

i) Egress direction and remarks.

2) CAS aircraft have current information on the following:

a) Targets.

b) Friendly situation.

c) Hazards (ADA, enemy, indirect fires, etc.).

i. Confirm friendly locations with aircraft (TAC Pam 50-22;MCM 3-3, Vol VIII)

1) Pilots can identify FLOT.

2) Pilots can identify location of elements forward of the FLOT (friendly troop location markings).

3) Pilots are aware of other aircraft in the area.

4) Pilots understand the danger close (1000 meters) criteria.

j. Confirm target locations with aircraft (TAC Pam 50-22;MCM 3-3, Vol VIII)

1) Ensure that CAS aircraft can identify the targets.

2) Designate targets by grid, from known terrain feature, by marking designator, or other coordinated means.

k. Initiate JSEAD effort (MCM 3-3, Vol VIII)

1) Execute prior to CAS attack.

2) Confirm targets.

3) Confirm method of attack (CAS, Army Aviation, indirect fires).

4) Confirm effectiveness of attack.

l. Confirm attack approval from ground commander (TAC Pam 50-28)

Ensure ground commander is aware of the following:

1) Target type.

2) Target location.

3) Time of attack.

4) Munitions.

m. Issue attack clearance (MCM 3-3, Vol VIII)

1) Identify final authority.

2) Confirm abort code.

3) Confirm type of clearance.

a) Depart IP.

b) On Final.

c) Flight Lead Control.

n. Confirm target approach (MCM 3-3, Vol VIII)

Ensure that the following are confirmed by both air and ground forces:

1) Air corridor.

2) Attack altitude.

3) Attack timing.

o. Direct attack on targets (TAC Pam 50-28)

1) Execute JSEAD.

2) Direct CAS to targets.

3) Identify targets for aircraft with smoke, laser, geographic means, etc.

p. Continuously update aircraft (TAC Pam 50-28;TAC Pam 50-20)

1) Anticipate ground maneuver speed.

2) Continuously give aircraft known and probable locations of enemy forces.

3) Continuously give aircraft locations of friendly forces.

4) Continuously update aircraft on the ground tactical situation.

q. Request pilot observations (MCM 3-3, Vol VIII)

1) Determine size of enemy forces.

2) Determine enemy disposition.

3) Determine type of enemy force.

4) Identify movement.

r. Disseminate pilot observations (MCM 3-3, Vol VIII)

All pilot tactical observations are immediately passed to the following:

1) The S2.

2) The S3.

3) The commander.

4) Other aircraft.

s. Determine Battle Damage Assessment (TAC Pam 50-22;MCM 3-3, Vol VIII)

1) Identify friendly aircraft losses.

2) Identify enemy losses (personnel, equipment, location, etc.).

t. Execute FAC handoff (TAC Pam 50-28;TAC Pam 50-22;MCM 3-3, Vol VIII)

1) Designate FAC responsibilities (in cases of multiple FACs).

2) Update incoming FAC on situation.

3) Ensure continuous and unimpeded CAS support.

4) GFAC prepared to assume direct control of aircraft.

35. **Maintain Contact with Adjacent Units** * (ARTEP 71-2-MTP, Task 7-1-3903-7)

a. Adjacent units are notified of arrival and use of CAS aircraft in the area.

1) See CCF 20.

CALL LESSONS LEARNED RELEVANT TO CCF 9
(EXTRACTS FROM LESSONS LEARNED BULLETINS)

1. NTC Commander's Memorandum — November 1985

The effective integration of CAS and indirect fires requires Airspace Coordination Areas (ACAs). The simplest solution -- stopping all indirect fires while aircraft are in the area -- is no solution. Aircraft almost always need the suppressive effects of the artillery in order to survive and maneuver commanders cannot abide an overall reduction in fires. Prior planning and close coordination between the FSO and FAC are key. Dividing the target area into either east and west or north and south halves is a practical approach. Whatever scheme is decided upon, it needs to be simple and instructions to the aircraft must reference terrain features not grids, e.g., stay north of the ridge and east of the road. ACAs can have such a significant impact that their implementation and removal should be approved by the TF commander on a case by case basis.

There is a dilemma inherent in having only one ground FAC with a battalion task force. He frequently needs to be in two places at one time -- with the commander and FSO coordinating fire support and maneuver and at a vantage point directing aircraft to their target. Sometimes these two functions can be performed at the same location but often they cannot. Two FACs are needed and FSOs, company officers, and scouts must know how to give final approach instructions to A-10 pilots.

2. CALL Bulletin 1-86 — July 1986

Army commanders at all levels should establish and use their FSCOOD as the single point of contact within their organization for all fire support liaison officers. The FSCOOD should be responsible for planning and coordinating the execution of all fire support. . . .The integration and synchronization of fire support assets becomes critical when the maneuver commander has not only field artillery, but also Air Force close air support (CAS), Marine Corps CAS, Navy CAS, and/or naval gunfire support available. In the Secret NOFORN report, *US Army Lessons Learned from Operation URGENT FURY*, HQDA recommends that the ALO and the ANGLICO personnel at every level be under the operational control of the FSCOORD at that level.

3. CATA Lessons Learned No. 4, Command and Control System — February 1987

The purpose of the ACA is to allow the simultaneous attack of targets near each other by multiple fire support means, one of which is air. Planning an ACA is similar to planning any other operation; it has to be wargamed, coordinated, approved, and disseminated.

Experience has shown that brigades are in the best position to plan and coordinate ACAs. The brigade has the knowledge of its total fire support needs. Furthermore it has the communication links and command and control interfaces of all assets (artillery, close air support [CAS], army aviation, and naval gunfire).

The following procedures aid establishing an ACA:

> A task force can recommend additional ACAs to the brigade. Brigade understanding of the intent of the task force commander is essential prior to planning these ACAs.

The brigade and DS artillery battalion determine if these ACAs are adequate, and, if not, they modify them.

Once approved, the FSE disseminates to all elements concerned as soon as possible.

The key players in this wargaming process are the task force S3, FSO, ALO, S3 Air, ADA, and army aviation representative and if possible, the artillery battalion S3 or fire direction officer. Experience has shown that an informal ACA is easier to plan, coordinate, and execute versus the three-dimensional formal ACA. An informal ACA should be very simple, e.g. specific terrain features that can be identified from the air should be used for air assets and corresponding grid coordinates for the indirect fire system. This information flow for ACA dissemination is depicted:

RESPONSIBLE AGENCY	DISSEMINATED TO
Bde FSO*	Div Arty TF FSO DS Bn TOC
TF FSO*	Co FSO Mortar Platoon
Co FSO*	FO
Bde ALO	TF ALO
ADA LNO or S3 Air	ADA Bn ADA LNO at TF level
Army Aviation LNO or S3 Air	AVN Bn

* The responsible agency will inform his maneuver counterpart.

A detailed ACA checklist outlining what must be done, with whom coordination must be affected, and in what specific order will streamline the above procedures. The best ACA results in the least disruption of friendly direct and indirect fires while maximizing aircraft firepower on targets. This is obtained through close/coordination between the ALO and FSO. The aircraft are sent in as the last rounds (ideally, WP marking rounds) are impacting. The ALO then gives the FSO a warning order, e.g., "will be leaving station in one minute", so that indirect fires can be resumed almost immediately after the aircraft depart.

4. CALL Lessons Learned Bulletin 1-87 — April 1987

Identification Friend or Foe procedures are the primary positive means of aircraft identification in Air Defense operations (FM 100-103, Army Airspace Command Control in a Combat Zone, Final Draft). Proper use of IFF procedures facilitates rapid engagement of enemy aircraft and reduces risk to friendly aircraft. Training exercises throughout the world, Army studies, and contingency operations indicate that these procedures are not adequately practiced. This is primarily a training problem with some material implications.

5. CATA Commander's Comments, The CS Team — May 1987

Doctrinally, CAS coordination and control responsibility is assumed by the appropriate FSO/FIST upon loss of the Tactical Air Control Party (TACP). The fire support system is unable to continue normal CAS operations after loss of the AF TACP...(Commanders must) attempt to provide hands-on training for deploying FSO/FIST personnel.

It is desired that the (ALO) have exclusive use of the battalion ALO M-113 due to his unique role. If the (ALO) has to share a M-113 with other members of the battalion staff, he should share it with the FSO.

When the ALO shares a vehicle with the FSO, he has the following advantages:

- has immediate access to fire support information and frequencies.
- probably is located in a key position to overlook the battle.
- is able to coordinate face -to-face with the FSO on fire support matters, especially ACAs.

There are trade-offs with the ALO sharing a vehicle with the FSO:

- the ALO is unable to communicate directly with aircraft unless the aircraft is equipped with FM radios or the ALO is equipped with a portable AM/HF radio.
- vehicle space could be a problem, especially when the FSV is buttoned-up.

Every soldier in fire support should know how many sorties are planned and available in his sector. They should also know the proper frequencies, call signs, and how to guide aircraft in case the Air Force (ALO or FAC) personnel are killed or not in position to control the aircraft. The key is getting the air liaison officer (ALO) involved in all planning operations. This will allow a constant dialogue between the FSO and ALO on fire support matters.

It is imperative that units schedule training with the ALO on a regular basis and have him teach classes on how to direct aircraft. Due to personnel turbulence, once a year is not often enough. Quarterly training is more appropriate. Since aircraft are expensive to use and hard to obtain for training, you may want to try an alternate idea. Obtain a Radio Controlled Miniature Aerial Target (RCMAT) from your Air Defense Artillery unit and fly it around your local training area. Your ALO can teach you classes and critique your execution with this device.

6. CALL Compendium Vol I: Heavy Forces — Fall 1988

Task forces don't adequately synchronize JAATs. Successful tactics, techniques and procedures:

- Attack helicopter battalion observers are becoming our best shooters. They need priority of fires or direct support artillery since quick fire channels are too slow.
- CAS/JAAT works best when planned and executed by brigade. The battalion task force must still plan and recommend employment based on the battalion requirements.
- Be patient with JAAT employment. Those who wait until employment criteria is met, have a higher rate of success than those who don't.

7. CALL Newsletter No. 90-5, Fire Support Lessons Learned — May 1990

CAS and Army aviation are usually planned and integrated at brigade level due to the intensity of the TF fight. Both Army aviation and Tactical aircraft should operate within maneuver control measures (air corridors, battle positions, boundaries, etc.) and standard fire support coordination measures. Airspace Coordination measures should be used to integrate CAS with other indirect fire assets.

An effective technique for minimizing the risk to friendly air is for brigade FSE to establish ingress and egress route to get aircraft into the target area, and establish or direct a subordinate TF FSE to establish airspace coordination measures in the target area.

The purpose of an airspace coordinating measure is to deconflict the airspace over the target area, thus minimizing the risk to friendly aircraft from each other, and/or indirect fires of the field artillery and mortars. Authority to implement and approve exceptions to an Airspace Coordination Area must be explicitly stated in either orders or SOPs.

Effective Airspace coordinating measures meet eight requirements:

- They are easily identifiable from the air.
- They are large enough to give aircraft room to maneuver.
- They give aircraft access to the target area from the initial point.
- They permit aircraft to engage targets with the ordinance they have on board.
- They include terrain that masks aircraft from hostile air defense systems.
- They separate aircraft from friendly surface fires in time or space.
- The permit surface systems to suppress enemy air defenses and mark targets.
- They are defined in terms that can be briefed quickly to both pilots and surface systems.

Although the majority of CAS and Army aviation missions will be planned and coordinated at the brigade level, mission execution authority must be passed to the FSO, Commander, or agency best capable of controlling target attack.

8. CALL Bulletin No. 90–9, Operation Just Cause Lessons Learned — October 1990

The AC-130 is an excellent fire support system. Precision fire control and accurate weapons systems fit well with restrictive ROE and reduction of collateral damage.

Optical sensors and low light-level television are surveillance aids for ground forces which the AC-130 can employ.

The communications package and altitude for operations make the AC-130 an excellent communications relay platform.

Units must establish and practice communications and marking procedures for operations with the AC-130 firing danger close. One method uses GLINT tape on the corners of vehicles, however when thermal sights are used these markings do not show.

Units should use one or a combination of the following to mark friendly personnel, vehicles and positions: GLINT tape (personnel-eye to ear across top of helmet), infrared (IR) strobe lights, IR cellophane on flashlights and IR chemlights.

At night, request AC-130 paint target with IR spotlight before engaging to ensure positive identification of target.

The AC-130 can be a significant navigation/identification aid for friendly units employing special marking/recognition signals moving in difficult terrain.

Conventional units in conjunction with the TACP must train in all aspects of AC-130 employment.

9. CALL Combat Training Centers (CTCs) Bulletin No. 93–4 — July 1993

Doctrinal relationships between the Army, Air Force, and Close Air Support (CAS) need to be reviewed. Doctrinally, the S3 (Air) submits preplanned CAS requests after fire support officer (FSO)/air liaison officer (ALO) coordination. In successful units, FSOs submit the requests to allow the S3 (Air) to focus on strategic and tactical air movement and aerial resupply. Maneuver commanders need to force Tactical Air Control Party TACP integration into the FSC, and to make the ALO subordinate to the FSO for matters of fire support coordination. Some new ALOs confuse issues of commander-special staff officer relationships, and issues of tactical operations and fire support coordination. Finally, units must train and authorize 13Fs to conduct CAS terminal strike control. TACPs often cannot get from the tactical operations center (TOC) to the target area to control the strike. Currently, soldiers only control CAS under wartime emergency conditions which severely degrades their preparedness to control CASs strikes when necessary.

LESSONS LEARNED INTEGRATED INTO CCF 9 TASK LIST

PLANNING

1. Direct and Lead Task Force During Planning for the Battle
2. Receive Order from Higher Headquarters
3. Conduct Mission Analysis
4. Issue the Warning Order
5. Commander Issues Guidance
6. Prepare Staff Estimates
7. Staff Develops Course of Action
8. Staff/CDR Analyze Course of Action
9. Staff Compares Courses of Action
10. Commander Announces Decision
11. Staff Prepares OPORD/FRAGO

    c. TACP prepares CAS input to fire support plans.

    Coordinate Air Defense Artillery control procedures.

    Identification Friend or Foe procedures are the primary positive means of aircraft identification in Air Defense operations (FM 100-103, Army Airspace Command Control in a Combat Zone, Final Draft). Proper use of IFF procedures facilitates rapid engagement of enemy aircraft and reduces risk to friendly aircraft. Training exercises throughout the world, Army studies, and contingency operations indicate that these procedures are not adequately practiced. This is primarily a training problem with some material implications.

    Review air capabilities and priorities.

    The AC-130 is an excellent fire support system. Precision fire control and accurate weapons systems fit well with restrictive ROE and reduction of collateral damage.

    Optical sensors and low light-level television are surveillance aids for ground forces which the AC-130 can employ.

    The communications package and altitude for operations make the AC-130 an excellent communications relay platform.

d. Develop fire support plan

Army commanders at all levels should establish and use their FSCOOD as the *single* point of contact within their organization for all fire support liaison officers. The FSCOOD should be responsible for planning and coordinating the execution of all fire support. . . .The integration and synchronization of fire support assets becomes critical when the maneuver commander has not only field artillery, but also Air Force close air support (CAS), Marine Corps CAS, Navy CAS, and/or naval gunfire support available. In the Secret NOFORN report, *US Army Lessons Learned from Operation URGENT FURY*, HQDA recommends that the ALO and the ANGLICO personnel at every level be under the operational control of the FSCOORD at that level.

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12. Issue the OPORD/FRAGO

13. Refine the Plan

b. Integrate CAS with fire support plan.

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Co FSO*	FO
Bde ALO	TF ALO
ADA LNO or S3 Air	ADA Bn ADA LNO at TF level
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A detailed ACA checklist outlining what must be done, with whom coordination must be affected, and in what specific order will streamline the above procedures. The best ACA results in the least disruption of friendly direct and indirect fires while maximizing aircraft firepower on targets. This is obtained through close/coordination between the ALO and FSO. The aircraft are sent in as the last rounds (ideally, WP marking rounds) are impacting. The ALO then gives the FSO a warning order, e.g., "will be leaving station in one minute", so that indirect fires can be resumed almost immediately after the aircraft depart.

14. TACP Conducts METT-T Analysis and Staff Coordination

PREPARATION

15. Command Group Conducts and Receives Briefings

16. Command Group/Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities

17. Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation

18. Commander, Commander's Representatives, and Staff Conduct Inspections and Visits

19. Task Force Conducts Rehearsals

20. Task Force Plan Modified and Refined

21. Command Post (TAC, TOC, CTCP) Operations

22. Liaison and Coordination with Higher, Adjacent, Supported, and Supporting Elements

    b. FSO/FSE coordinate fire support plan.

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    - The brigade and DS artillery battalion determine if these ACAs are adequate, and, if not, they modify them.

    - Once approved, the FSE disseminates to all elements concerned as soon as possible.

    c. Disseminate CAS plan

    Every soldier in fire support should know how many sorties are planned and available in his sector. They should also know the proper frequencies, call signs, and how to guide aircraft in case the Air Force (ALO or FAC) personnel are killed or not in position to control the aircraft. The key is getting the air liaison officer (ALO) involved in all planning operations. This will allow a constant dialogue between the FSO and ALO on fire support matters.

23. Command Group/Command Posts Position to Control the Battle

24. TACP Confirms Planned Support and Control Measures

25. TACP Coordinates with AFAC on Arrival

26. Position Forces

EXECUTION

27. TF Command Posts Locate Where They Can Control the Battle

    a. Position command element/TOC

    There is a dilemma inherent in having only one ground FAC with a battalion task force. He frequently needs to be in two places at one time — with the commander and FSO coordinating fire support and maneuver and at a vantage point directing aircraft to their target. Sometimes these two functions can be performed at the same location

but often they cannot. Two FACs are needed and FSOs, company officers, and scouts must know how to give final approach instructions to A-10 pilots.

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- the ALO is unable to communicate directly with aircraft unless the aircraft is equipped with FM radios or the ALO is equipped with a portable AM/HF radio.
- vehicle space could be a problem, especially when the FSV is buttoned-up.

28. TF Commander Sees the Battlefield

29. TF Commander Directs and Leads the Execution Phase

c. Execute CAS

Although the majority of CAS and Army aviation missions will be planned and coordinated at the brigade level, mission execution authority must be passed to the FSO, Commander, or agency best capable of controlling target attack.

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30. TF Command Posts Track and Support the Battle

31. TF Conducts Battlefield Update (METT-T based)

32. TF Conducts the Decision Making Process (Accelerated)

33. TF Consolidates and Reorganizes

34. TACP controls CAS aircraft during execution

There is a dilemma inherent in having only one ground FAC with a battalion task force. He frequently needs to be in two places at one time -- with the commander and FSO coordinating fire support and maneuver and at a vantage point directing aircraft to their target. Sometimes these two functions can be performed at the same location but often they cannot. Two FACs are needed and FSOs, company officers, and scouts must know how to give final approach instructions to A-10 pilots.

i. Confirm friendly locations with aircraft

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At night, request AC-130 paint target with IR spotlight before engaging to ensure positive identification of target.

The AC-130 can be a significant navigation/identification aid for friendly units employing special marking/recognition signals moving in difficult terrain.

35. Maintain Contact with Adjacent Units

CCF 9
CRITICAL TASKS AND OTHER LINKAGES

TASKS	OTHER LINKAGES
1. Direct and Lead Task Force During Planning for the Battle	NOTE: All CAS targets should also be planned as artillery targets as a contingency in case the CAS mission is diverted to a higher priority target. In addition, in the absence of the TACP and/or AFAC, the artillery call for fire/adjust fire system (FO/FIST, FSO/FSE) may be called upon to adjust CAS on target. The "Other Linkages" identified here are those artillery tasks necessary to either accomplish CAS in the absence of key Air Force personnel, or to bring artillery fires on the target in the absence of aircraft. The execution of field artillery fires requires technical expertise on the part of both the individual or unit requesting artillery and the agency (FIST or FSE) responsible for processing artillery fires. Although the conduct of these activities will be transparent to the battalion TF commander, the FSO and all Artillery Fire Support personnel must demonstrate proficiency in order to accomplish the execution of artillery fires. Those tasks require proficiency at the individual level and they must be executed to achieve the commanders intent for employment of field artillery. See CCF 08 for the complete list.
2. Receive Order from Higher Headquarters	
3. Conduct Mission Analysis	
4. Issue the Warning Order	
5. Commander Issues Guidance	
a. TACP conducts mission analysis	FSO (STP 6-13II-MQS) – Advise Maneuver Cdr on Employment of Available FS Assets, MQS Task 01-2999.94-0106
6. Prepare Staff Estimates	
7. Staff Develops Course of Action	
8. Staff/CDR Analyze Course of Action	
9. Staff Compares Courses of Action	
10. Commander Announces Decision	

TASKS	OTHER LINKAGES
11. Staff Prepares OPORD/FRAGO a. Intelligence	FSO (STP 6-13II-MQS), FSNCO/FSE (STP 6-13F14-SM-TG) – Develop and Write a FA Support Plan, MQS Task 01-2999.94-0104, Task 061-284-4247 – Apply the FS Coord Measures, MQS Task 01-2840.00-2025 – Direct the Establishment of and Verify Cdrs Criteria, MQS Task 01-2770.01-0115 – Direct the Establishment of a Fire Plan in the TACFIRE Computer, MQS Task 01-2770.01-0115 – Produce an Attack Guidance Matrix, MQS Task 01-2840.00-2038, Task 061-284-4246 – Produce a High-Payoff Target Matrix, MQS Task 01-2840.00-2044, Task 061-284-4245 – Enter, Modify, and Delete Cdrs Criteria by Using the VFMED, Task 061-277-4020 – Establish and Maintain a FASCAM Fire Plan by Using the VFMED, Task 061-277-4026 – Post Information on a Sit Map/Overlay, Task 061-284-1011 – Recommend/Disseminate FS Coord Measure, Task 061-284-4040 – Write the Fires Paragraph of Maneuver OPORD, Task 061-284-4244
b. Plan scheme of maneuver	Platoon Leaders – Plan for use of control measures, MQS Task 01-3154.00-0147
d. Develop fire support plan	Company/Team, Platoon – Plan Fire Support Employment, MQS Task 04-3313.03-0002 – Plan for use of supporting fires, Task 071-410-0020 FSO (STP 6-13II-MQS), FSNCO/FSE (STP 6-13F14-SM-TG) – Plan FA FS of Maneuver Units, MQS Task 01-2999.94-0100 – Interpret Threat Organization and Equipment, MQS Task 01-2660.00-2004 – Recommend FS Coord Measures, MQS Task 01-2999.94-0101 – Develop a FS Plan to Support an Offensive Operation, MQS Task 01-2660.00-2008, Task 061-284-4229 – Develop a FS Plan to Support a Defensive Operation, MQS Task 01-2660.00-2009, Task 061-284-4231 – Advise the Cdr on the Capabilities of Available Tgt Acquisition Assets, MQS Task 01-3020.00-7002, Task 061-284-4411

TASKS	OTHER LINKAGES
	– Advise the Maneuver Cdr on Employment of COLTS MQS Task 01-2840.00-2039 – Recommend FS Coord Measures, and Coordinate Fires, MQS Task 01-2840.00-2042 – Advise Supported Units of Friendly Fire Support Capabilities and Limitations Task 061-284-3004 – Select and Occupy an OP, Task 061-283-2051 – Pass Fire Support Information of Lower, Adjacent, and Higher Field Artillery Elements, Task 061-284-3046 – Analyze Formations of Threat Forces, Task 061-284-4000 – Recommend and Disseminate FS Coordination Measures, Task (061-284-4040) – Plan and Coordinate FS to Suppress Enemy AD Task 061-284-4209 – Plan for Employment of Smart Wpns and Special Munitions Task 061-384-4243
12. Issue the OPORD/FRAGO	FSNCO/FSE (STP 6-13F14-SM-TG) – Pass FS Info to Lower, Adjacent, and Higher FA Elements, Task 061-284-3046 – Recommend/Disseminate FS Coord Measures, Task 061-284-4040
13. Refine the Plan	FSO (STP 6-13II-MQS), FSNCO/FSE (STP 6-13F14-SM-TG) – Develop a FS Plan to Support an Offensive Opn, MQS Task 01-2660.00-2008 – Develop a FS Plan to Support a Defensive Opn, MQS Task 01-2660.00-2009 – Enter, Modify, and Delete Cdrs Criteria Using VFMED, Task (061-277-4020) – Retrieve Artillery Target Intel Using VFMED, Task 061-277-4025 – Pass FS Info to Lower, Adjacent, and Higher FA Elements Task 061-284-3046 – Analyze Formations of Threat Forces, Task 061-284-4000 – Recommend/Disseminate FS Coordination Measures, Task 061-284-4040 – Advise Maneuver Cdr on Employment of Target Acquisition Assets, Task 061-284-4211 – Plan for Employment of Smart Wpns and Special Munitions, Task 061-284-4243

TASKS	OTHER LINKAGES
14. TACP Conducts METT-T Analysis and Staff Coordination	
15. Command Group Conducts and Receives Briefing	
16. Command Group/Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities	
17. Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation	
18. Commander, Commander's Representatives and Staff Conduct Inspections and Visits	
19. Task Force Conducts Rehearsals	
20. Task Force Plan Modified and Refined	
21. Command Post (TAC, TOC, CTCP) Operations	
22. Liaison and Coordination with Higher, Adjacent, Supported, and Supporting Elements	
b. FSO/FSE coordinate fire support plan	FSO (STP 6-13II-MQS), FSNCO/FSE (STP 6-13F14-SM-TG) – Recommend and Disseminate FS Coord Measures, and Coordinate Fires, MQS Task 01- 2840.00-2042, Task 061-284-4040, 061-284-4022 – Pass FS Info to Lower, Adjacent, and Higher FA Elements, Task 061-284-3046 – Plan and Coordinate FS to Suppress Enemy AD, Task 061-284-4209) Co/Tm FSO (STP 6-13II-MQS) – Coordinate Fire Support for a Maneuver Unit, MQS Task 01-2999.93-0001
23. Command Group/Command Posts Position to Control the Battle	
24. TACP Confirms Planned Support and Control Measures	
25. TACP Coordinates with AFAC on Arrival	
26. Position Forces	

TASKS	OTHER LINKAGES
27. TF Command Posts Locate Where They Can Control the Battle	
a. Position command element/TOC	TF FSO (No MTP/STP reference) – FSO ensures FSE repositions and maintains commo with supporting/supported units – Ensures FSE can process artillery requests during movement and when in position
b. Maintain communications	FSNCO/FSE (STP 6-13F14-SM-TG) – Establish FSE Commo, Task 061-284-4221 – Send a radio message, Task 113-571-1016 – Use automated CEOI, Task 113-573-8006
28. TF Commander Sees the Battlefield	
29. TF Commander Directs and Leads the Execution Phase	
b. Execute J-SEAD	FSNCO/FSE (STP 6-13F14-SM-TG) – Plan and Coordinate FS to Suppress Enemy AD, Task 061-284-4209
c. Execute CAS	FIST/FO (STP 6-13F14-SM-TG) – Organize and Conduct the Operation of the FS Team, MQS Task 01-2660.00-2007 – Select and Occupy an OP, Task 061-283-2051 – Establish the FIST HQ Commo, Task 061-284-3220 – Assist an Untrained Observer with the Conduct of a Fire Mission, MQS Task 01-2800.00-3001 – Prepare Laser Target Designator (LTD) AN/PAQ-1, MQS Task 01-2740.00-1962, 1965 – Designate a Target using the Laser Target Designator (LTD) AN/PAQ-1, MQS Task 01-2740.00-1964, 1966 Company/Team, Platoon – Conduct Fire Support Employment, MQS Task 04-3313.02-0001 Platoon/Platoon Leaders (indirect fire) – Employ fire support, MTP Task 7-3-1006 – Call for/adjust indirect fire support, Task 061-283-6003 – Locate target by grid coordinate, Task 061-283-1002
30. TF Command Posts Track and Support the Battle	

TASKS	OTHER LINKAGES
31. TF Conducts Battlefield Update (METT-T based)	FSO (STP 6-13II-MQS), FSNCO/FSE (STP 6-13F14-SM-TG) – Direct the Evaluation and Dissemination of Intel Reports Using TACFIRE, MQS Task 01-2770.01-0114 – Advise Maneuver Cdr on TACFIRE Operations, MQS Task 01-2770.01-0118 – Retrieve Artillery Tgt Intel Using VFMED, Task 061-277-4035 – Advise Supported Unit of Friendly FS Capabilities and Limitations, Task 061-284-3004 – Analyze the Formations of Threat Forces, Task 061-284-4000 – Recommend/Disseminate FS Coord Measures Task 061-284-4040 – Advise Maneuver Cdr on Employment of Target Acquisition Assets, Task 061-284-4211
32. TF Conducts the Decision Making Process (Accelerated)	FSO (STP 6-13II-MQS), FSNCO/FSE (STP 6-13F14-SM-TG) – Advise the Cdr on the Capabilities and Limitations of Available Target Acquisition Assets, MQS Task 01-3020.00-7002 – Advise Maneuver Cdr on Employment of Target Acquisition Assets, Task 061-284-4211 – Advise the Maneuver Cdr on Employment of COLTS, MQS Task 01-2840.00-2039 – Advise Maneuver Cdr on TACFIRE Operations, MQS Task 01-2770.01-0118 – Advise Supported Unit of Friendly FS Capabilities and Limitations, Task 061-284-3004 – Recommend/Disseminate FS Coord Measures, Task 061-284-4040
33. TF Consolidates and Reorganizes	
34. TACP Controls CAS Aircraft During Execution	
35. Maintain Contact with Adjacent Units	Platoon Leaders – Maintain location of unit & adjacent units, MTP Task 7-3/4-1025-11 – Coordinate w/ adjacent platoons, MQS Task 01-3154.00-0014

EMPLOY CLOSE AIR SUPPORT

REFERENCES

FMs

FM 1-111	Aviation Brigade
FM 6-20	Fire Support in the AirLand Battle, May 88
FM 6-20-30	Fire Support for Corps and Division Operations, Oct 89
FM 6-20-40	Fire Support for Brigade Operations, Jan 90
FM 44-3	Air Defense Artillery Employment, Chaparral/Vulcan/Stinger, Jun 84
FM 44-31	Tactics, Techniques, and Procedures: Avenger Squad Operations, Jun 90
FM 44-46	Manpads Platoon and Section Operations
FM 71-2	The Tank and Mechanized Infantry Battalion Task Force, Oct 88
FM 71-100	Division Operations
FM 71-123	Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team, Sep 92
FM 90-15 (TACP 50-23)	J-SEAD Multi-Service Procedures for the Joint Suppression of Enemy Air Defenses, Jun 90
FM 90-17 (TACP 50-39)	Beacon Multi-Service Procedures for Radar Beacon Operations, Jul 90
FM 90-20 (TACP 50-28)	J-Fire Multi-Service Procedures for the Joint Application of Firepower
FM 90-21 (TACP 50-20)	JAAT Multi-Service Procedures for Joint Air Attack Team Operations, Oct 91
FM 100-26	Air Ground Operations System
FM 100-103	Army Airspace Command and Control in a Combat Zone, Oct 87
MCM 3-3, Vol VIII	Multi-Command Manual, Mission Employment Tactics AFAC and TACP (Draft)
TACP 50-22	Tactical Air Control Party/Fire Support Team Close Air Support Operations
TACP 50-36	Joint Concept and Procedures for Close Air Support in the Rear Battle
TACP 55-51	TACP Hand Book (Replaced by MCM 3-3)

ARTEP

ARTEP 71-2-MTP	The Tank and Mechanized Infantry Battalion TF MTP, Oct 88

STP

STP 7-11II-MQS	Military Qualification Standard II, Infantry Branch (11), July 91
STP 6-13II-MQS	Military Qualification Standard II, Field Artillery Branch (13), Mar 91
STP 6-13F14-SM-TG	Fire Support Specialist (13F) Soldier's Manual and Trainer's Guide, Sep 93
STP 7-11B24-SM	Soldier's Manual (11B) - Infantryman, Jul 85

Other Related Sources

List of Brigade Critical Combat Tasks for the Air Ground Training Feedback System, Interim Report, Army Research Institute (Field Unit at the Presidio of Monterey [ARI-POM]), 30 June 1993.

Published Lessons Learned

NTC Commander's Memorandum - Nov 85

CALL Bulletin 1-86 — Jul 86

CATA Lessons Learned No. 4, Command and Control System — Feb 87

CALL Lessons Learned Bulletin 1-87 — Apr 87

CATA Commander's Comments, The CS Team — May 87

CALL Compendium Vol I: Heavy Forces — Fall 88

CALL Newsletter No. 90-5, Fire Support Lessons Learned — May 90

CALL Bulletin No. 90–9, Operation Just Cause Lessons Learned — Oct 90

CALL Combat Training Centers (CTCs) Bulletin No. 93–4 — Jul 93